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January 31, 2003

Ex Parte

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th H Street, SW, Portals
Washington, DC 20554

Re: Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338; Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98; and Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147

Dear Ms. Dortch:

The attached documents were filed as part of Verizon's Comments in RM-10593 AT&T Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access dated December 2, 2002. Verizon is placing it on the record in the above proceeding. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ann D. Berkowitz".

Attachments

cc: W. Maher
J. Carlisle
C. Libertelli
M. Brill
J. Goldstein
D. Gonzalez
L. Zaina
M. Carey
R. Tanner
J. Miller
S. Bergmann
B. Olson
T. Navin

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
AT&T Petition for Rulemaking)	RM 10593
To Reform Regulation of Incumbent)	
Local Exchange Carrier Rates for)	
Special Access Services)	

COMPETITION FOR SPECIAL ACCESS SERVICES

December 2, 2002

INTRODUCTION AND SUMMARY

There is extensive competition in the provision of special access service. Competitors first entered this market more than 15 years ago. They have since deployed extensive local networks in most of the markets where special access demand is concentrated. And even in the areas where competitive facilities are not yet available, competing carriers have been able to compete successfully by reselling special access service purchased from ILECs.

1. *Competitive Access Facilities.* In the time since the Commission granted ILECs pricing flexibility for special access services, competitive fiber networks have grown by more than 80 percent – from approximately 100,000 route miles to at least 184,000 route miles, and the majority of this fiber is local. During that same period, the number of competitive networks in the 150 largest MSAs – which contain nearly 70 percent of the U.S. population – has grown by more than 60 percent, from approximately 1,100 to nearly 1,800. Competing carriers are now providing special access service to at least 330,000 buildings using a combination of their own networks and last-mile facilities obtained from third parties, including ILECs. This includes at least 30,000 buildings that competing carriers serve entirely over their own facilities. And while competitors have claimed that these totals are small relative to the total number of buildings nationwide, a small number of buildings in each metropolitan area typically accounts for a large fraction of the traffic. It has been estimated, for example, that only 200 to 300 out of 15,000 multi-tenant units in a typical large MSA generate 80 percent of the data revenues in that MSA. AT&T, which is by far the largest user of special access, reports that its special access customers are concentrated in 186,000 buildings, which represent just one-quarter of the total number of commercial-office buildings nationwide.

AT&T and WorldCom are the two largest purchasers of special access in the country, and are also the two largest suppliers of competitive access. AT&T's chairman and CEO has recently stated that "AT&T has invested over \$20 billion" in its "access layer," and is now able to provide "over 20 percent . . . of our T1-equivalent services . . . on net and we're growing that every day with a real focus at a grassroots, granular level, building by building, address by address, of moving customers over." AT&T reports to investors that it provides more than 27 million voice-grade equivalent special access and private lines. WorldCom – which spent \$14 billion to acquire one competitive access provider (and has acquired others as well) – has recently stated that it is able to provide at least 10 percent of its last-mile DS-1 special access circuits over its own facilities or those of other competitive suppliers. Both AT&T and WorldCom also rely on the competitive access facilities of other CLECs. WorldCom "contracts with 41 CLECs" for fiber, while AT&T has "entered into agreements with virtually every major CLEC."

At the same time that competing carriers have been expanding their local fiber networks, there has been a rapid increase in local fiber supplied by "carrier-agnostic" wholesale suppliers. These companies have raised several billion dollars in capital and have deployed networks in most of the major markets. And while some of these companies have experienced financial difficulties, that is due at least in part to the difficulty of competing against below-cost UNEs, which devalue these suppliers' significant investments. In any event, the wholesale fiber suppliers that have sought bankruptcy protection are still operating their networks, many are now emerging from bankruptcy, and others have weathered the recent slowdown and continue to add

customers and new networks. Many utility companies – which according to one source control as much as 35 percent of the nation’s fiber infrastructure – also are now supplying local fiber to competing carriers. So are several of the largest operators of long-haul fiber networks.

2. *Use of ILEC Special Access Service.* In addition to using their own facilities or those of other competitive suppliers, CLECs and IXC’s are purchasing a large number of special access circuits from ILECs that they are reselling to end-user customers together with their own facilities or services. Competitors are purchasing far more high-capacity circuits as special access service than as unbundled network elements. In Verizon’s region, for example, competing carriers have obtained more than twice as many high-capacity circuits (DS1s and above) as special access than as unbundled network elements in 2002. Several competing carriers in Verizon’s region purchase all of their high capacity circuits exclusively as special access, and many others rely predominantly on special access to satisfy their demand for high-capacity circuits.

3. *Competitive Special Access Lines and Revenues.* As the Commission has recognized, special access competition is properly measured by the availability of competitive alternatives, rather than by the number of customers that have actually chosen those alternatives. The fact that competitors have managed to capture substantial numbers of special access lines and large amounts of special access revenues nonetheless provides additional confirmation that competitive alternatives for special access are widespread.

According to information they report to investors – but that is excluded from the local competition data reported by the FCC – competing carriers now provide at least 140 million voice-grade equivalent lines as special access and private lines. To put these totals in perspective, the Bell companies collectively serve only about 80 million voice-grade equivalent special access lines, including those provided to competing carriers. Assuming that the BOCs provided approximately 44 percent (35 million) of their voice-grade equivalent special access lines directly to end users – which is the same percentage of special access revenues they generate from end-users – means that competing carriers are providing roughly 95 million voice-grade equivalent special access and private lines *entirely* over their own facilities or those of competitive suppliers.

Competing carriers as a whole earned approximately \$10 billion in special access and private line revenues in 2001 according to the leading independent study of the CLEC industry, which the CLECs’ own trade associations have repeatedly endorsed. The comparable figure for the Bell companies is approximately \$18 billion. Based on these figures, CLECs have captured more than one-third of all revenues for special access services.

4. *Competition for Services that Use Special Access as an Input.* While competitors have long claimed that ILECs have theoretical incentives to discriminate in the provision of special access, the extensive and growing competition for services that rely on special access as an input proves that no such discrimination is actually occurring. The big three interexchange carriers dominate the provision of long distance, ATM, and Frame Relay services to large businesses, while the Bell companies are only minor players. In the provision of local services to business customers, CLECs have already captured between 17 and 24 million switched lines, and these totals are growing rapidly.

I. SPECIAL ACCESS COMPETITION

Special access “involves the provisioning of so-called ‘private lines,’ that is, facilities or network transmission capacity dedicated to the use of an individual customer.”¹ The Commission opened special access to competition in the 1980s, a full decade before passage of the 1996 Act. Having had a long time to develop, competition for special access is now mature. As demonstrated in Table 1, the Commission has acknowledged extensive competition in the provision of special access for more than a decade.

The main purchasers of special access service are “IXCs and large businesses, not residential or small business end users.”² In the case of Verizon, for example, more than 80 percent of its special access revenue is generated from high-capacity circuits (*i.e.*, DS-1 or above), which the Commission has recognized “are primarily used by business customers.”³ Interexchange carriers – which use special access to transport large volumes of traffic to and from their largest business customers – account for approximately 60 percent of Verizon’s special access revenue.

Special access has traditionally been used primarily to establish connections between end users and *interstate* networks. The Commission has defined special access as the “variety of services and facilities which constitute the local portion of certain interstate telecommunications lines.”⁴ Special access circuits “run directly between [an] end user and [an interexchange carrier’s] point of presence (POP),”⁵ or directly between two end-user locations. Interexchange carriers “typically provide resold special access and private line services as part of toll service operations.”⁶

¹ *Investigation of Special Access Tariffs of Local Exchange Carriers*, 8 FCC Rcd 4712, ¶ 2 (1993) (“*Special Access Tariff Order*”).

² *Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Carriers; Petition of U S WEST Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, ¶ 142 (1999) (“*Pricing Flexibility Order*”); see also *WorldCom v. FCC*, 238 F.3d 449, 453 (D.C. Cir. 2001) (“Most users of special access services are companies with high call volumes.”).

³ See, e.g., *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Second Report, 15 FCC Rcd 20913, ¶ 99 (2000).

⁴ *Special Access Tariff Order* ¶ 2.

⁵ *Pricing Flexibility Order* ¶ 8.

⁶ Ind. Anal. Div., FCC, *Local Telephone Competition at the New Millennium* at Table 6 note **** (Aug. 2000).

Table 1. FCC Findings that Special Access Is Competitive

1990	“New facilities-based competition has emerged in the high capacity special access market.”
1991	“Intensified interstate long-distance competition, when combined with the American Telephone and Telegraph Company’s (AT&T’s) divestiture of the Bell Operating Companies (BOCs) and the implementation of federal equal access and access charge systems, have greatly increased interexchange carrier (IXC) and end user incentives to seek lower cost options for interstate access . . . Fiber-based carriers, sometimes described as Competitive Access Providers (CAPs), now offer access services to large business customers in the central business districts of many major cities.”
1991	“But now, fiber-based Competitive Access Providers (or CAPs) are also successfully offering access services to large corporate customers in the central business districts of many American cities . . . Customers are also starting to use radio-based facilities as technologies provide even more alternatives, and some do not use LEC facilities at all to connect their customer location directly with their long-distance carrier.”
1992	“We are granting the LECs increased pricing flexibility to respond to competition for special access services.”
1992	“Even without expanded interconnection, LECs are already facing access competition, for example, as reflected in the proliferation of ‘closet POP’ arrangements.”
1992	“[A] growing number of Competitive Access Providers (CAPs) have entered the access market in recent years, deploying fiber-optic rings or, in some cases, microwave systems, to serve the needs of large communications-intensive businesses, predominantly in metropolitan centers. CAPs have formed strategic partnerships with and attracted major investments from cable television companies, electric utilities, large construction firms, and other entities with extensive financial resources. At present, CAPs generally are limited to providing end-to-end interstate special access connections, for example, between customer premises and interexchange carrier (IXC) points of presence (POPs), completely bypassing LEC facilities.”
1995	“There is growing evidence that an increasing variety of local telecommunication services is available on a competitive basis. This trend is most pronounced in larger urban areas where new entrants appear to be marketing their transport and other local services to high-volume toll users that offer the most lucrative returns.”
1995	“One of the most exciting and dynamic segments of the telecommunications industry is alternative local service providers. The firms in this market segment started out as CAPs. They began by building high-capacity fiber optic facilities for customers with large volumes of communications traffic. The initial fiber facilities – usually in the form of a ring or loop through a central business district – connected customers to a hub where traffic could be concentrated and turned over to interexchange carriers. The industry experienced incredible growth, nearly doubling in size each year for the last five years.”
1996	“Competitors have begun to provide exchange access services, aided in significant part by our expanded interconnection policies.”
1998	“Recent statistics support the conclusion that incumbent LECs are facing increasing competition from new entrants in the market for . . . exchange access services to larger business customers. . . . Interconnected CLECs appear to have gained at least 40 percent of the high capacity special access market in the New York City central offices in which they are located, including 10 of 11 central offices below 59th Street in Manhattan.”
1998	“CLECs, many of which began as competitive access providers (CAPs), have been most successful in the market for specialized services. In 1997, CLECs reported about 14% of the total special access lines and local private lines services provided to other carriers.”
2000	“Competitive access, which originated in the mid-1980s, is a mature source of competition in telecommunications.”
2000	“[T]he revenues of competitive LECs come primarily from special access and local private line services rather than from switched service to end users.”
<i>Sources: See Appendix A.</i>	

In recent years, some competing carriers – including AT&T and WorldCom – have also begun to purchase special access service from ILECs to establish dedicated connections between end users and the competitors’ own *local* network facilities, including their local switches and fiber rings. These competing carriers are using special access as a substitute for unbundled high-capacity loops and loop and transport combinations (*i.e.*, EELs) in order to provide switched as well as dedicated local services to large business customers.⁷

Regardless of how it is being used, the demand for special access is highly concentrated. In Verizon’s region, for example, more than 85 percent of special access revenues is generated from about 20 percent of Verizon’s total wire centers.⁸ This reflects the fact that the ultimate customers of special access service – large businesses – are themselves highly concentrated. For example, it is estimated that just four MSAs – New York, San Francisco, Washington, D.C., and Los Angeles – generate some 40 percent of all data revenues nationwide.⁹ According to AT&T, its local facilities in 92 U.S. cities reach 70 percent of the local market.¹⁰ AT&T – which serves more than half of the entire long distance market – provides special access service to 186,000 office buildings¹¹ out of a total of about 739,000 commercial office buildings nationwide.¹²

The demand for special access has been growing rapidly, driven in large part by the rise in data traffic. For example, at the time the Commission granted ILECs pricing flexibility for their special access service in late 1999, ILECs and competing carriers reported approximately \$16 billion in special access and private line revenues.¹³ As of year-end 2000, that total had grown to approximately \$22 billion – a 36 percent increase.¹⁴ Competing carriers’ and ILECs’ special access revenues increased by roughly the same percentage during that period.

⁷ See, e.g., Petition for Rulemaking at 14-15, *AT&T Petition for Rulemaking To Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM 10593 (FCC filed Oct. 15, 2002) (“*AT&T Petition*”).

⁸ These totals are for Verizon East – that is, the former Bell Atlantic territory.

⁹ *UNE Fact Report 2002* at IV-3 & n.10, attached to Comments and Contingent Petition for Forbearance of the Verizon Telephone Companies, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket Nos. 01-338 *et al.* (FCC filed Apr. 5, 2002) (citing Lehman Brothers and McKinsey & Co., *The Future of Metropolitan Area Networks* at 8 (Aug. 24, 2001)) (“*UNE Fact Report 2002*”).

¹⁰ David Dorman, Chairman and CEO-Elect, AT&T, presentation at the UBS Warburg Global Telecom Conference, at 7 (Nov. 11, 2002), http://www.att.com/ir/pdf/20021111_dorman.pdf.

¹¹ Declaration of Kenneth Thomas ¶ 3, attached to *AT&T Petition* (“*AT&T’s Thomas Decl.*”).

¹² See Energy Information Administration, U.S. Dep’t of Energy, *1999 Commercial Buildings Energy Consumption Survey – Commercial Buildings Characteristics* at Table B1 (Summary Table: Totals and Means of Floorspace, Number of Workers, and Hours of Operation, 1999), <http://www.eia.doe.gov/emeu/cbecs/pdf/b1.pdf> (rel. May 2002). The Department of Energy defines commercial “office” buildings to include “administrative or professional office[s].” Energy Information Administration, U.S. Dep’t of Energy, *Description of CBECS Building Types*, http://www.eia.doe.gov/emeu/cbecs/char99/building_types.html.

¹³ New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 3 at Table 13 (16th ed. 2002) (dedicated access & private line revenues for CLECs) (“*CLEC Report 2002, 16th ed.*”); Ind. Anal. Div., FCC, *Telecommunications Industry Revenues 1999*, at 11 (Table 5, Lines 305 & 312) and 15 (Table 6, Lines 406 & 415) (Sept. 2000) (“*FCC Telecommunications Industry Revenues, 1999 ed.*”).

¹⁴ *CLEC Report 2002, 16th ed.*, Ch. 3 at Table 13 (dedicated access & private line revenues for CLECs); Ind. Anal. Div., FCC, *Telecommunications Industry Revenues 2000* at 13 (Table 5, Lines 305 & 312) and 17 (Table

Today, there is extensive competition in the provision of special access service. *See* Table 2. Competing carriers now have extensive local networks in place in most of the markets where special access demand is concentrated. A number of wholesale fiber suppliers also serve most major markets. And even in the areas where competitive facilities are not yet available, CLECs have been able to compete successfully by reselling special access service purchased from ILECs. CLECs now provide more than 140 million voice-grade equivalent special access and private lines using either their own facilities, the facilities of other competitive suppliers, or by reselling ILEC special access service. CLECs including the major IXC account for one-third or more of all special access revenues, and their share of the market has been growing steadily.

Table 2. Special Access Competition (as of YE 2001)	
CLEC fiber route miles (local and long-haul)	184,000
CLEC networks in top 150 MSAs	1,800
CLEC buildings served on-net	30,000
CLEC buildings served off-net	300,000
CLEC voice-grade-equivalent special access lines	140 million
CLEC special access and private line revenues	\$10 billion
<i>Sources: See Appendix A.</i>	

A. Competitive Providers of Special Access Service

The first “competitive access provider,” Teleport Communications Group (TCG), was formed in 1984, shortly after the breakup of the Bell System. TCG immediately began to build a fiber-optic network in lower Manhattan, to provide special access service to business customers. In 1986, the Commission affirmed that exchange access is an interstate service, and preempted “any *de facto* or *de jure* barrier to entry” established by state regulation.¹⁵ By 1997, TCG’s annual report would claim that it was one of AT&T’s “preferred national supplier[s]” of special access services.¹⁶ Shortly thereafter, AT&T acquired TCG for \$11 billion.¹⁷

Other competitive access providers developed equally successfully during that period.¹⁸ Institutional Communications Company (ICC), the second major CAP, was formed in 1986 in

6, Lines 406 & 415) (Jan. 2002) (“*FCC Telecommunications Industry Revenues, 2000 ed.*”). According to the New Paradigm Resources Group, CLEC special access and private line revenues has increased by approximately 60 percent between 1999 and 2001. *See CLEC Report 2002, 16th ed.*, Ch. 3 at Table 13.

¹⁵ *Cox Cable Communications, Inc., Commline, Inc., and Cox DTS, Inc.*, Memorandum Opinion, Declaratory Ruling, and Order, 102 FCC2d 110, ¶ 40 (1985), *vacated as moot*, 61 Rad. Reg. 967 (1986).

¹⁶ Teleport Communications Group, Form 10-K405 (SEC filed Mar. 27, 1997).

¹⁷ *See* AT&T News Release, *AT&T Completes TCG Merger* (July 23, 1998); S. Schiesel, *AT&T to Pay \$11.3 Billion for Teleport*, N.Y. Times at D1 (Jan. 9, 1998).

¹⁸ As a CLECs’ own economist describes it: “Beginning in the late 1980s, the competitive access providers . . . began to construct fiber ring facilities in the central business districts . . . of many urban areas in order to supply the IXCs and their customers with alternatives to ILEC provided special access services. Large IXCs have vertically integrated into the special access business in order to provide dedicated circuits to their largest customers in certain

Washington, DC.¹⁹ In 1987, Chicago Fiber Optic (soon to be MFS) began building a network to provide special access in downtown Chicago.²⁰ In 1991, ICC was acquired by MFS.²¹ And in December 1996, MFS itself was acquired by WorldCom for \$14 billion.²²

From 1984 until 1992, most special access competition took the form of direct connections between large end users and IXC POPs. Competitors had deployed nearly 2,000 route miles of fiber by 1992,²³ prompting the Commission to declare that CAPs “now offer access services to large business customers in the central business districts of many major cities” and that many customers “do not use LEC facilities at all to connect their customer location directly with their long-distance carrier.”²⁴

In 1992, the Commission opened a second pathway to special access competition: It required incumbent LECs to provide collocation to competitive access providers.²⁵ This permitted special access competitors to collocate in an ILEC central office and construct a fiber entrance facility between the office and IXC POPs. By 1995, competitors had deployed more than 21,000 route miles of fiber and were already earning over \$500 million in special access/private line revenues.²⁶ The Commission noted that year that the competitive access industry had “experienced incredible growth, nearly doubling in size each year for the last five years.”²⁷ By 1997, one analyst would note that AT&T was “giv[ing] *more than half* of all of its local dedicated access orders to the CLECs, as opposed to the ILECs.”²⁸ As demonstrated in Table 3, interexchange carriers continue to rely extensively on competitive access networks.

parts of the country.” Daniel Kelley, HAI Consulting, Inc., *Deregulation of Special Access Services: Timing Is Everything* at 7-8 (June 25, 1999), attached to Ex Parte filing of the Association of Local Telecommunications Services, CC Docket No. 99-24 (FCC filed July 1, 1999).

¹⁹ See New Paradigm Resource Group, Inc., *The 1999 CLEC Report*, Ch. 2 at 3 (10th ed. 1999).

²⁰ See *id.*

²¹ See *id.*

²² See WorldCom Press Release, *WorldCom, Inc. and MFS Announce Merger to Form Premier Business Communications Company* (Aug. 26, 1996).

²³ See Ind. Anal. Div., FCC, *Fiber Deployment Update, End of Year 1996* at Table 14 (1997).

²⁴ *Expanded Interconnection with Local Telephone Company Facilities*, Notice of Proposed Rulemaking and Notice of Inquiry, 6 FCC Rcd 3259 ¶ 2 (1991); Remarks by Richard M. Firestone, Chief, Common Carrier Bureau, FCC, Ninth Annual FCBA/PLI Conference, *Telecommunications Policy and Regulation* (Dec. 2, 1991).

²⁵ See *Expanded Interconnection with Local Telephone Company Facilities*, Report and Order, 7 FCC Rcd 7369 (1992).

²⁶ See Connecticut Research, *1995/96 Local Telecommunications Competition*, at Table II-2 (7th ed. 1995) New Paradigm Resources Group, Inc., & Connecticut Research, *1997 Annual Report on Local Telecommunications Competition*, at Table 13 (8th ed. 1996).

²⁷ FCC News Release, *Common Carrier Competition*, 1995 FCC LEXIS 3544 (May 31, 1995).

²⁸ F.J. Governali, *et al.*, Credit Suisse First Boston Corp., Investext Rpt. No. 2563177, Teleport Communications Group, Inc. – Company Report at *6 (July 7, 1997) (emphasis added).

Table 3. IXC Use of Competitive Access Networks

<p>“Teleport Communications of New York, for example, has been successful in marketing its services to interexchange carriers. . . In 1988, Teleport reported that more than 70% of the network capacity in use had been leased to interexchange carriers. . . ICC in Washington had a similar experience. Its first large contracts were with the interexchange carriers.”</p>
<p>“[AT&T] will continue to pursue arrangements with [companies other than incumbent local exchange carriers] that provide access to customers.”</p>
<p>“Brooks Fiber . . . and AT&T, jointly announced today that the companies have significantly expanded their existing contractual relationship in an agreement which allows for Brooks Fiber to provide AT&T dedicated access services in six additional cities over its networks.”</p>
<p>“AT&T now gives more than half of all of its local dedicated access orders to the CLECs, as opposed to the ILECs.”</p>
<p>Bob Annunziata, then President of AT&T’s Business Services Group, “stated that AT&T was meeting its target of \$1.1 billion of TCG/AT&T synergies (about 50% from operating expense savings, 30% from network and access savings and 20% from revenue synergies).”</p>
<p>“Included in the synergies [of the MCI/WorldCom merger] are . . . \$113 million from savings in dedicated and switched access, private line and WATS.”</p>
<p>“Sprint LDD has several years’ experience using access facilities provided by competitive access providers (“CAPs”) . . . 43% of Sprint LDD’s DS3 dedicated access customers, who are able to choose their access provider, have selected a CAP.”</p>
<p>“Given its desire, wherever feasible, to reduce its dependence on ILECs as sole suppliers of access facilities, Sprint’s long distance unit made several attempts to utilize competitive access providers (“CAPs”). Ultimately, Sprint made significant use of CAPs, and designated CAPs as Sprint’s preferred provider of special access in five metropolitan areas: New York, Denver, Charlotte, Miami, and Fort Lauderdale.”</p>
<p>“MCI WorldCom is committed to using alternatives to the ILECs for its transport needs wherever possible. Wherever feasible, MCI WorldCom selects transport from an alternative provider.”</p>
<p>“Long distance carriers have obtained lower cost access from competitive providers, allowing them to offer lower rates. AT&T and MCI WorldCom are the two largest providers of competitive access in the industry today (they are their own largest customers).”</p>
<p>“WorldCom contracts with 41 CLECs” for competitive access provisioning.</p>
<p>“Sprint reported high capacity alternate access vender [sic] (AAV) alternatives to 29,884 . . . commercial buildings nationwide.”</p>
<p>“In order to reduce access costs, Sprint now fully considers [the] capabilities [of its major long distance competitors] whenever it needs alternate sources of supply [of special access loops].”</p>
<p>“AT&T has undertaken a comprehensive plan to convert interoffice facilities to alternative providers when possible. While AT&T continues to look for additional opportunities for such conversion, in general AT&T has taken advantage of such alternatives where possible.”</p>
<p>While “AT&T generally seeks alternate providers that can provide facilities nationwide,” it “occasionally uses a small-scope supplier in order to accommodate specific customer requirements.”</p>
<p>“AT&T’s experience confirms that in a significant percentage of high volume building locations in which AT&T operates there is at least one other CLEC/CAP present.”</p>
<p>“Besides the Tier 1 ISPs, much of [Time Warner Telecom’s] revenue (AT&T is the largest customer) is derived from other telephone companies that can’ provision such [dedicated transport] capacity.”</p>
<p>Sources: See Appendix A.</p>

Today, there are a large number of competing carriers providing special access services throughout the country.²⁹ According to one public source, at least 16 CLECs earned \$20 million or more in annual special access revenues in 2001.³⁰ See Table 4.

²⁹ CLEC Report 2002, 16th ed., Ch. 6.

³⁰ Id.

Table 4. Major Competitive Providers of Special Access			
Company	Special Access Revenue (2001, in millions)	Company	Special Access Revenue (2001, in millions)
AT&T	\$2,880	McLeodUSA	\$91
WorldCom	\$2,207	KMC Telecom	\$90
Qwest	\$480	General Comm., Inc.	\$71
Time Warner Telecom	\$384	Adelphia Bus. Solutions	\$62
XO Communications	\$378	BTI Telecom	\$48
IDT/WinStar	\$190	NTS Communications	\$45
ICG Communications	\$165	Cablevision Lightpath	\$28
ITC^DeltaCom	\$96	Cox Communications	\$21
<i>Source: NPRG. See Appendix A.</i>			

The two largest interexchange carriers – AT&T and WorldCom – are also the two largest CLECs. They provide access services to themselves and are their own largest customers.³¹ Some of the largest independent CLECs, such as ICG, started out as competitive access providers, and special access services remain a major source of their revenue and profit.³² Some of the newer CLECs, such as KMC Telecom, put a heavy business emphasis on special access, too.³³ As the FCC has found, special access and local private line services represent one of the largest single components of CLEC revenue.³⁴

³¹ See, e.g., E. Struminger, PaineWebber, Inc., Investtext Report No. 2930537, *Telecom Services: Industry Update – Industry Report* at *5 (Aug. 19, 1999) (“AT&T and MCI WorldCom are the two largest providers of competitive access in the industry today (they are their own largest customers)”). As demonstrated below, AT&T and WorldCom have more recently acknowledged that they rely extensively on their own competitive access facilities. See page 11 & nn.46-48, *infra*.

³² See ICG Communications, *The Long (in Dog Years) History of ICG*, <http://www.icgcomm.com/company/history.asp>; *CLEC Report 2002, 16th ed.*, Ch. 6 – ICG at 6, e.spire at 3, 5.

³³ See *id.*, Ch. 6 – KMC at 4, US LEC at 5.

³⁴ *Promotion of Competitive Networks in Local Telecommunications Markets*, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, Fifth Report and Order and Memorandum Opinion and Order in CC Docket No. 96-98, and Fourth Report and Order and Memorandum Opinion and Order in CC Docket No. 88-57, 15 FCC Rcd 22983, ¶ 24 (2000) (“the revenues of competitive LECs come primarily from special access and local private line services.”); *CLEC Report 2002, 16th ed.*, Ch. 3 at Table 13 (nearly 20 percent of CLEC revenues are from the provision of dedicated access and private line services).

B. Competitive Access Facilities

Competing carriers now have extensive local networks in place in most of the markets where special access demand is concentrated. These networks typically connect to multiple interexchange carrier POPs and are routinely used to provide special access services.³⁵

Competitors provide special access services over their networks using both “on-net” and “off-net” connections. In an on-net connection, the competing carrier extends its metropolitan fiber ring directly to an end-user’s premises (e.g., an office building). To the extent that a specific building or location is not served by the ring, the carrier may deploy a “lateral” extension to establish the connection. WorldCom, for example, states that it will “install[] a diverse lateral to buildings located within a mile of an existing ring” so long as that building contains sufficient demand.³⁶ AT&T has recently stated that its extending its metropolitan fiber networks “through a variety of means, not just optically, but also with radio and free-based optics – any way we can get customers on net, we’re looking at doing.”³⁷

In an off-net connection, a competing carrier connects its metropolitan fiber ring to an end user through a special access circuit obtained from a third-party supplier – either another CLEC, a wholesale fiber supplier, or an ILEC. In many cases, the competitor will obtain the special access circuit for only the last-mile connection (*i.e.*, the channel termination) that runs between the end user and the carrier’s network. The competing carrier then uses its own network facilities to provide the connection to an interexchange carrier’s POP (*i.e.*, the entrance facility).

Competing carriers typically rely on a mix of off-net and on-net connections to provide special access service. They also rely on multiple providers for special access transport in different markets.³⁸ For example, WorldCom recently acknowledged that it “contracts with 41 CLECs” for fiber.³⁹ AT&T has likewise “entered into agreements with virtually every major CLEC.”⁴⁰ Time Warner Telecom’s largest customers are WorldCom and AT&T.⁴¹ A Web-

³⁵ For example, of the 36 CLECs listed with fiber networks in New Paradigm’s *CLEC Report 2002*, at least 27 report special access and private line revenues. See *CLEC Report 2002*, 16th ed., Ch. 4 at Table 16 & Ch. 6.

³⁶ WorldCom, *Hi-Cap Competition*, at 5 (Oct. 7, 2002), attached to Ex Parte Letter from R. Milkman to M. Dortch, CC Docket Nos. 01-338 *et al.* (Oct. 7, 2002) (“*Hi-Cap Competition*”); see also *UNE Fact Report 2002* at IV-5.

³⁷ David Dorman, President, AT&T, *Presentation at the Goldman Sachs Communacopia Conference*, Transcript of Remarks (Oct. 2, 2002) (“*Transcript of Dorman Oct. 2002 Goldman Sachs Presentation*”).

³⁸ See, e.g., Reply Comments of Conversent Communications, LLC at 7-8, CC Docket No. 01-338 (FCC filed July 17, 2002) (stating that it purchases dedicated transport and dark fiber from three competitive providers, and that it “can and does” self-provision dark fiber); Declaration of Anthony Fea and Anthony Giovannucci on Behalf of AT&T Corp. ¶ 49 n.23, attached to Reply Comments of AT&T Corp., CC Docket No. 01-338 (FCC filed July 17, 2002) (“AT&T has undertaken a comprehensive plan to convert interoffice facilities to alternative providers when possible. While AT&T continues to look for additional opportunities for such conversion, in general AT&T has taken advantage of such alternatives where possible.”) (“*AT&T’s Fea/Giovannucci Triennial Review Decl.*”); *id.* ¶ 50 (While “AT&T generally seeks alternate providers that can provide facilities nationwide,” it “occasionally uses a small-scope supplier in order to accommodate specific customer requirements.”).

³⁹ WorldCom, *Hi-Cap Competition* at 6.

⁴⁰ *AT&T’s Thomas Decl.* ¶ 5.

⁴¹ Time Warner Telecom, Form 10-Q (SEC filed Aug. 14, 2002).

based trading pit for metropolitan fiber now includes over 35 fiber wholesalers listing “over 10,000 *local* route miles” of fiber⁴² in more than 60 cities.⁴³

Many CLECs also operate as interexchange carriers and provide long distance service bundled with special access service over their own access facilities (*i.e.*, they “self-supply” access).⁴⁴ AT&T and WorldCom – the two largest interexchange carriers – have acquired extensive local access networks for precisely that purpose. AT&T’s chairman and CEO has recently stated that “AT&T has invested over \$20 billion” in its “access layer,”⁴⁵ and is now able to provide “over 20 percent . . . of our T1-equivalent services . . . on net and we’re growing that every day with a real focus at a grassroots, granular level, building by building, address by address, of moving customers over.”⁴⁶ With its “core platform investments” now “behind” it, AT&T claims it has “scale and ubiquity” in the provision of local access.⁴⁷ WorldCom – which spent \$14 billion to acquire one competitive access provider – has recently stated that it is able to provide at least 10 percent of its last-mile DS-1 special access circuits over its own facilities or those of other competitive suppliers.⁴⁸ Other interexchange carriers – including Qwest and Sprint – also have deployed competitive local facilities to self-supply access.⁴⁹

As these facts demonstrate, special access competition has been developing in much the same way that long distance competition emerged. MCI and Sprint first began competing against AT&T by deploying facilities on select point-to-point routes, and then filling in the gaps by obtaining service from AT&T at resale.⁵⁰ MCI and Sprint first built facilities in the largest and most profitable markets, and then gradually expanded into smaller markets from there. Following this approach, these competitive carriers were ultimately able to construct nationwide long-haul networks that rivaled AT&T’s, and did so all without unbundling or TELRIC rates. Just like the early long distance competitors, special access providers are using a combination of their own facilities and resale of incumbent services. And, as demonstrated below, this has led to

⁴² D. Mohny, *Fiberloops.com – One-stop Shopping*, ispworld.com (Aug. 22, 2000).

⁴³ Fiberloops.com, *Find Fiber and Facilities Fast*, <http://www.fiberloops.com/Fiberloops/home.html>.

⁴⁴ See Declaration of Michael Pfau on Behalf of AT&T Corp. ¶ 16, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98 (FCC filed Apr. 30, 2001) (acknowledging that the access that AT&T and WorldCom supplied to themselves in 1999 was worth approximately \$900 million) (“AT&T’s Pfau 2001 Special Access Decl.”).

⁴⁵ *Transcript of Dorman Oct. 2002 Goldman Sachs Presentation*.

⁴⁶ *Transcript of Dorman Oct. 2002 Goldman Sachs Presentation*.

⁴⁷ David Dorman, President, AT&T, presentation at the Goldman Sachs Communacopia conference, at 6 (Oct. 2, 2002), http://www.att.com/ir/pdf/20021002_dorman.pdf.

⁴⁸ Ex Parte Letter from Henry Hultquist, WorldCom, to Marlene Dortch, FCC, CC Docket No. 01-338, at 2 (Oct. 29, 2002).

⁴⁹ See, e.g., Qwest Press Release, *Qwest Communications Completes 25 Local Broadband Networks, Beating Own Deadline by Seven Months* (June 21, 2001) (Qwest operates “local broadband networks in 25 major markets outside its 14-state local service territory.”); Sprint Corp., Form 10-K (SEC filed Mar. 4, 2002) (“Sprint [] is implementing a metropolitan area network (MAN) strategy through the lease and purchase of dark-fiber rings in key U.S. cities. This fiber-optic infrastructure is expected to enable Sprint to reduce local access costs in the future.”).

⁵⁰ See, e.g., *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Domestic Public Switched Network Services*, 83 FCC 2d 167 (1980); *Specialized Common Carrier*, 29 FCC 2d 870 (1971).

massive investment in competitive facilities, while at the same time permitting competitors to compete in the areas where those facilities have not yet been deployed.

CLEC Networks. At the time the Commission granted ILECs pricing flexibility for special access services, CLEC fiber networks spanned approximately 100,000 route miles (both local and long-haul).⁵¹ Today, CLEC networks consist of at least 184,000 route miles of fiber (both local and long-haul).⁵² While many CLECs do not publicly report how many purely local route miles of fiber they operate, information from CLECs that do release such totals confirms that the majority of this fiber is local.⁵³

Since the time the Commission granted ILECs pricing flexibility for special access service, the number of “operational” and “on-net” CLEC networks in the 150 largest MSAs – which contain nearly 70 percent of the U.S. population⁵⁴ – has grown from approximately 1,100 to nearly 1,800.⁵⁵ See Table 5. These are networks that consist entirely of the CLEC’s own facilities, or that use the CLEC’s facilities in combination with the facilities of other suppliers, including other CLECs, carrier-agnostic wholesale suppliers, or ILECs. Today, 91 of the top 100 MSAs are served by at least three CLEC networks; 77 are served by at least seven, 59 are served by at least 10.⁵⁶

⁵¹ See *CLEC Report 2000*, Ch. 6 at Table 5 (restated 1998 route miles). As described in the following note, the latest NPRG report excludes fiber for competitive Independent Operating Companies, utility CLECs, data providers, and Gig-E providers. To make an apples-to-apples comparison with the 2001 totals, this report removes from the 1998 totals the fiber for carriers that NPRG has placed in one of these categories.

⁵² New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 4 at Table 14 (15th ed. 2002) (“*CLEC Report 2002, 15th ed.*”). This is a highly conservative estimate. It does not include 117,000 route-miles of fiber that NPRG lists for competitive Independent Operating Companies, utility CLECs, data providers, or Gig-E providers. Moreover, the total miles for 2001 have been adjusted downward to address the concerns that CLECs raised in the Special Access proceeding in April 2001 (CC Docket No. 96-98).

⁵³ For example, of the 33 CLECs for which NPRG provides fiber-route miles, there are only four examples (Adelphia, McLeod, Time Warner Telecom, and XO) where, based on CLECs’ own public disclosures, the total route miles reported by NPRG appear to include significant amounts of long-haul fiber. At the same time, the total route miles reported by NPRG are *lower* than local-only route-mile totals provided by at least two CLECs (AT&T and Cablevision) and do not include any fiber route miles for WorldCom, which is one of the two largest CLECs.

⁵⁴ Rand McNally, *Commercial Atlas and Marketing Guide 2001* at 60-61, 83 (132nd ed. 2001).

⁵⁵ These totals count all “voice networks” and “data networks” that NPRG’s *CLEC Report 2002, 15th ed.* lists as “operational.”

⁵⁶ See *UNE Fact Report 2002*, App. K. In the course of the Triennial Review proceeding, only one CLEC (NewSouth) contested this showing of where CLEC networks have been deployed. Those claims – which, even if true, have only a minimal effect on these totals – have been addressed elsewhere. See Ex Parte Letter from Whit Jordan, BellSouth, John W. Kure, Qwest, Jay Bennett, SBC, and W. Scott Randolph, Verizon, to Marlene H. Dortch, FCC, CC Docket Nos. 01-338, 96-98, and 98-147 (Sept. 4, 2002).

Table 5. Average Number of CLEC Networks by MSA	
MSA Rank	CLEC Networks (2001)
1-25	32.2
26-50	15.0
51-75	9.0
76-100	6.6
101-125	4.8
126-150	3.4
<i>Source: NPRG. See Appendix A.</i>	

Most CLECs do not report how many buildings their fiber networks serve.⁵⁷ Public data are available for only about 20 CLECs;⁵⁸ as of year-end 2001 this small subset of CLECs operated networks that served approximately 330,000 buildings.⁵⁹ This figure includes “off-net” buildings – buildings served in part using facilities leased or resold from another competing carrier or an ILEC. As explained above, however, when CLECs provide special access service to “off-net” buildings they are doing so, in part, with their own facilities. CLECs have estimated that the number of unique office buildings served *entirely* by their fiber networks (*i.e.*, “on-net” buildings) is roughly 30,000 nationwide.⁶⁰ And that total is constantly increasing. For example, AT&T has recently acknowledged that it continues to expand its local fiber network “every day with a real focus at a grassroots, granular level, building by building, address by address.”⁶¹

While CLECs have argued in the past that the number of buildings served by CLEC fiber is small relative the total number of buildings nationwide, a small number of buildings in each metropolitan area typically account for a large fraction of the traffic. It has been estimated, for example, that 200 to 300 out of 15,000 multi-tenant units in a typical Tier-One MSA generate 80 percent of the data revenues.⁶² And just four MSAs – New York, San Francisco, Washington,

⁵⁷ See, e.g., M. Kastan, *et al.*, Credit Suisse First Boston, *Telecom Services: CLECs – Third Quarter Vital Signs Review*, at Exh. 16 (Dec. 2001) (total buildings data for 8 of the 14 profiled CLECs were not available); J. Atkin & D. Coleman, Dain Rauscher Wessels, *City Light: An Investor’s Guide to Metropolitan Optical Services* at 11 (Mar. 22, 2001) (“Few carriers release detailed data on their fiber networks.”).

⁵⁸ By comparison, there are at least 110 CLECs as well as numerous wholesale fiber suppliers that currently operate metropolitan networks. See *CLEC Report 2002, 15th ed.*, Ch. 6; Section ____.

⁵⁹ *CLEC Report 2002, 15th ed.*, Ch. 4 at Table 19. This is a highly conservative estimate. It excludes not only the buildings served by literally dozens of CLECs, but also does not include the 27,000 additional buildings NPRG reports for competitive Independent Operating Companies, utility CLECs, data providers, Gig-E providers, fiber layers, and other providers. See *id.* Moreover, the total buildings have been adjusted downward to address the concerns that CLECs raised in the Special Access proceeding in April 2001 (CC Docket No. 96-98).

⁶⁰ See, e.g., WorldCom, *Hi-Cap Competition* at 4. In the Triennial Review proceeding, only a few CLECs have provided information regarding the number of buildings they serve with fiber; the totals they have provided, however, are consistent with those used here and in the *UNE Fact Report*. See *UNE Rebuttal Report 2002* at 44 & n.238, attached to Ex Parte Letter from Dee May, Verizon, to Marlene Dortch, FCC, CC Docket No. 01-338 (Oct. 23, 2002) (“*UNE Rebuttal Report 2002*”).

⁶¹ See *Transcript of Dorman Oct. 2002 Goldman Sachs Presentation*.

⁶² Lehman Brothers and McKinsey & Co., *The Future of Metropolitan Area Networks* at 8 (Aug. 24, 2001). A Tier-One MSA is typically defined as an MSA with a population of one million or more.

D.C., and Los Angeles – generate some 40 percent of all data revenues nationwide.⁶³ As noted above, AT&T’s special access customers are concentrated in just 186,000 buildings, which represent just one-quarter of the total number of commercial-office buildings nationwide.

Data on where CLECs have obtained fiber-based collocation provide further proof that CLECs are using their facilities to provide special access service in most of the markets where special access demand is concentrated. CLECs that provide competitive access often do so by collocating their own transmission equipment in an ILEC central office and connecting that equipment to their own fiber-optic network. As the Commission has found, “fiber-based collocation” accordingly supplies the simplest and most unambiguous indicator of the extent of competition in the special access market, albeit a very conservative one that sharply underestimates the full extent of competition.

As both the Commission and the D.C. Circuit found, fiber-based collocation “‘is a reliable indication of sunk investment by competitors.’”⁶⁴ As a result, “collocation can reasonably serve as a measure of competition in a given market and predictor of competitive constraints upon future LEC behavior.”⁶⁵ The existence of fiber-based collocation within an MSA demonstrates “that IXCs have a competitive alternative for dedicated transport services needed to reach the majority, although not necessarily all, of their long distance customers throughout the MSA, and that almost all special access customers have a competitive alternative.”⁶⁶

As of year-end 2001, one or more CLECs had obtained fiber-based collocation in wire centers that contain 55 percent of Verizon’s business lines. As of that same date, one or more CLECs had obtained fiber-based collocation in two-thirds of Verizon wire centers with more than 10,000 business lines.

Of course, these figures are only a highly conservative measure of the extent to which CLECs are using their own facilities to provide special access service because, with all the competitive fiber that has been deployed, a considerable amount of traffic also now bypasses ILEC wire centers completely.⁶⁷ As the Commission and the D.C. Circuit have recognized, measuring special access competition by the existence of fiber-based collocation is highly conservative because “‘it fails to account for the presence of competitors that . . . have wholly bypassed incumbent LEC facilities.’”⁶⁸ And with the rapid rise of data traffic in recent years, special access bypass has increased even beyond what the Commission initially contemplated. ILECs are no longer the sole, and in many cases are not even the primary, points of traffic aggregation. The majority of all traffic today is data traffic, and many – if not most – of the main

⁶³ *Id.*

⁶⁴ *WorldCom v. FCC*, 238 F.3d. 449, 459 (D.C. Cir. 2001) (quoting *Pricing Flexibility Order* ¶ 81).

⁶⁵ *Id.*

⁶⁶ *Pricing Flexibility Order* ¶ 142.

⁶⁷ These data also are conservative because they examine only fiber-based collocation, even though competitive carriers have obtained many collocation arrangements that, although not fiber based today, could easily be modified to connect to third-party fiber.

⁶⁸ *WorldCom v. FCC*, 238 F.3d. at 462 (quoting *Pricing Flexibility Order* ¶ 95).

points of aggregating data traffic are located outside of the ILEC network – at NAPs, IXC POPs, data centers, and collocation hotels.⁶⁹

Wholesale Fiber Suppliers. At the same time that CLECs have been expanding their local fiber networks, there has been a rapid increase in local fiber supplied by “carrier-agnostic” wholesale suppliers.⁷⁰ These companies typically sell or lease dark fiber to other carriers, but do not themselves engage in the provision of telecommunications services. They have invested well over \$1 billion in deploying local fiber networks that they sell or lease to other carriers. As a result, for a growing number of CLECs, the fiber provided by these wholesale suppliers satisfies a large part of their demand for interoffice transport.

Five of these alternative fiber suppliers have formed an industry coalition – the Coalition of Competitive Fiber Providers – which states that its members’ business plans involve the “provision of fiber-based transport services and dark fiber to CLEC[s] . . . collocated in ILEC central offices.”⁷¹ The Coalition claims that its “members together represent a total capital investment of approximately \$1 billion.”⁷² According to analysts, metropolitan fiber suppliers have raised about \$2 billion in capital since the third quarter of 2000.⁷³

Just like CLECs, alternative wholesale suppliers of fiber connect end users to their fiber rings, which in turn connect to interexchange carrier POPs and ILEC central offices.⁷⁴ Because these alternative suppliers are “carrier agnostic,” they can use their networks to serve multiple carriers at once, significantly improving the economics of deploying fiber.⁷⁵ For a growing

⁶⁹ See *UNE Fact Report 2002* at III-4.

⁷⁰ See, e.g., J. Grubman, Salomon Smith Barney, *Grubman’s State of the Union* at 15 (Mar. 21, 2001) (“there is an avalanche of metro capacity being deployed.”); *Robertson Stephens Provides Outlook on Telecom Services*, PR Newswire (Sept. 7, 2000) (“We believe that we have reached the beginning of the end of the metropolitan bandwidth bottleneck . . . We are seeing a new generation of metropolitan bandwidth operators that will provide 100 Mbps plus connectivity at low cost to end users.”).

⁷¹ Coalition of Competitive Fiber Providers, Petition for Declaratory Ruling at 2, *Application of Sections 251(b)(4) and 224(f)(1) of the Communications Act of 1934, as amended, to Central Office Facilities of Incumbent Local Exchange Carriers*, CC Docket No. 01-77 (FCC filed Mar. 15, 2001) (“*Coalition of Competitive Fiber Providers Petition*”). The five coalition members are American Fiber Systems, Fiber Technologies, Global Metro Networks, Telergy, and Telseon.

⁷² *Coalition of Competitive Fiber Providers Petition* at 2.

⁷³ P. Brown, *Metro Money; Despite Tighter Purse Strings, Cash Is Still Streaming to Metro Providers*, Tele.com (Aug. 13, 2001) (citing the Yankee Group and quoting Lehman Brothers Equity Research telecom analyst Blake Bath).

⁷⁴ See, e.g., *Coalition of Competitive Fiber Providers Petition* at 1 (emphasis added) (Our members “provide, or will provide, advanced fiber-based transport services, including interoffice transport, and/or dark fiber to end users and other telecommunications carriers. Coalition members together offer these services and products in virtually every region of the ‘lower 48’ states and the District of Columbia.”); Looking Glass Networks, *FAQ*, <http://www.lglass.net/aboutus/faq.jsp> (Looking Glass’s target customers include “Long Haul Carriers (IXCs), Incumbent Local Exchange Carriers (ILECs), Competitive Local Exchange Carriers (CLECs), Internet Service Providers (ISPs), data centers, bandwidth trading organizations, storage facility providers, wireless data providers and large enterprise customers.”).

⁷⁵ See, e.g., Wall Street Transcript Corp., *CEO Interview, John Peters – Sigma Networks, Inc.* (John Peters, CEO, Sigma Networks: “[E]ach of these metro networks requires a very large amount of traffic to drive the unit cost

number of CLECs, the fiber provided by these wholesale suppliers satisfies a large part of their demand for last-mile local connectivity and interoffice transport.⁷⁶

While some of the wholesale suppliers of local fiber have experienced financial difficulties, that is due at least in part to the difficulty of competing against below-cost UNEs, which devalue these suppliers' significant investments. In any event, those wholesalers that have sought bankruptcy protection are still operating their networks, and some are now emerging from bankruptcy. See Table 6. Others have weathered the recent slowdown and continue to add customers and new networks. See *id.* MFN has stated that it "will continue to operate without interruption," during its Chapter 11 proceedings, and will ensure that its "top-notch service levels will not be compromised by the reorganization process."⁷⁷ It "has picked up orders from customers even since filing for bankruptcy protection," and the company's networks in cities along the Northeast corridor – as well as "in Dallas and Houston, where oil and gas companies have been reliable customers, and in technology-rich Western cities such as San Jose, Calif., San Francisco and Seattle" – are already profitable.⁷⁸ Williams has emerged from bankruptcy protection "a financially stronger company, well-positioned to provide reliable, superior service over the long-term."⁷⁹

down to a reasonable level. So by having us deploy a common network infrastructure that can be used by many carriers, we can get the traffic volumes aggregated on our network much more easily than any individual carrier can do on their own and therefore we can drive unit cost down faster."); *id.* (John Peters, CEO, Sigma Networks: "We take a position of neutrality with regard to our customers. . . . We're a neutral provider of broadband interconnections."); Looking Glass Networks, *Collocation*, <http://www.lglass.net/products/collocation.jsp> (Looking Glass Networks provides "carrier-neutral facilities").

⁷⁶ See, e.g., Allegiance Telecom Inc., Form 10-K405 (SEC filed Mar. 30, 2001) (Allegiance has leased fiber from suppliers in 25 markets, and claims that "[t]hese fiber rings are expected to provide [Allegiance] with a reliable, diverse and robust connection to most of [its] central office locations throughout a market."); CTC Communications Press Release, *CTC Communications Announces Fully Funded Local Fiber Build-Out Plan; High Bandwidth Core Fiber Network to Be Extended to Verizon Local Switching Offices*, Bus. Wire (Dec. 19, 2000) (CTC purchased from a "number of dark fiber suppliers" "local fiber in selected geographical areas of eastern Massachusetts, southern New Hampshire, southern Maine and Rhode Island," which it claims will "extend CTC's existing high bandwidth fiber network backbone to Verizon local switching offices," and enable it to "eliminate the need for leased inter-office Verizon facilities."); Sprint Press Release, *Sprint Signs Multiyear Contract with Metromedia Fiber Network for Enhanced Access to Major U.S. Markets* (Dec. 4, 2001) (Sprint expects to begin using MFN networks in initial markets in the second quarter of 2002 and in all 10 cities by the end of 2002); M. Martin, *Looking Glass Focuses on MAN Services*, Network World (Jan. 21, 2002) ("Focal Communications, a national service provider catering to large companies, has used private line services from Looking Glass in several markets for about six months.").

⁷⁷ Metromedia Fiber Network Press Release, *Metromedia Fiber Network, Inc. To Reorganize Through a Voluntary Chapter 11 Filing* (May 20, 2002) (quoting John Gerdelman, president and chief executive officer of MFN); see also *id.* (MFN has "reached an agreement with its senior secured lenders which will enable the Company to fund its operations while it implements its plan to become cash flow positive.").

⁷⁸ A. Drury, *Metromedia Fiber Network Rose Fast, Fell Hard*, Journal News (Aug. 22, 2002) (quoting Metromedia senior vice president of network operations Bill LaPerch).

⁷⁹ Williams Communications Press Release, *Court Confirms Williams Communications Group's Plan of Reorganization* (Oct. 1, 2002); Williams Communications Press Release, *Williams Communications Completes Restructuring, Exits Chapter 11* (Oct. 16, 2002).

Table 6. Wholesale Local Fiber Suppliers

	Cities with Operational and Planned Networks	Network Details	Recent Status
American Fiber Systems	Kansas City, Nashville, Cleveland, Minneapolis/St. Paul, Salt Lake City, St. Louis, Hartford. AFS is developing dark fiber optic rings in at least 124 other cities across the country	AFS plans to install “more than 1.4 million miles of fiber-optic strands in second and third-tier U.S. cities over the next seven years.”	CEO Dave Rusin (May 2002): “We’re seeing large enterprises wanting 24, 48 strands of fiber. This is the tip of the iceberg.”
Fibertech Networks	Indianapolis, Syracuse, Albany, Binghamton, Buffalo and Rochester, Pittsburgh, Hartford, New Haven, Columbus, Providence, Worcester, Springfield. Future networks planned in at least 47 markets.	Fiber Technologies “planned network infrastructure and diverse ring topology will encompass more than 40 cities, 6,400 route miles and in excess of 306,000 fiber miles.”	President and CEO John Purcell (Mar. 2002): “We closed last year cash positive from operations, are debt-free . . . These are major accomplishments for a start-up company in this economy.”
Yipes	San Francisco, San Diego, Seattle, Chicago, New York, Philadelphia, Denver, Dallas, Houston, and Washington, D.C.	“Yipes brings ‘optical IP dial tone’ to customers through a direct fiber link between their premises and Yipes’ regional fiber rings.”	July 2002: Yipes “raised a \$40.8 million round of equity financing which was led by NVP, with a second tranche of \$13.2 million expected to close later this year.”
OnFiber	Atlanta, Chicago, Dallas, Denver, Houston, Los Angeles, Miami, New York, Philadelphia, San Francisco, Seattle, Washington, D.C.	“OnFiber’s redundant, physically diverse network provides the foundation for the broadest suite of connectivity solutions available including Optical Wavelength, SONET, and Ethernet.”	Aug. 2002: OnFiber “has acquired a majority of the network assets and customer contracts of Telseon, Inc. . . increas[ing] the total value of OnFiber’s customer contracts by 40 percent, to \$39 million.” July 2002: “monthly recurring revenue has increased almost 400 percent since December 2001.”
Looking Glass	Atlanta, Boston, Chicago, Dallas, Houston, Los Angeles, New York, Northern New Jersey, San Francisco, San Jose, Seattle, Washington, D.C., Northern Virginia	With “over \$60 million dollars in customer contracts . . . Looking Glass has been catering to the needs of its sixty-plus carrier and enterprise customers by providing a full range of SONET, Ethernet and Wavelength lit services, along with dark fiber and carrier-neutral collocation services”	Sunit Patel, CFO (Aug. 2002): “Our financial success over the past year has been particularly significant given the volatile climate of the telecom market. . . . In less than 12 months, our Dallas networks turned EBITDA positive.”

Table 6. Wholesale Local Fiber Suppliers

	Cities with Operational and Planned Networks	Network Details	Recent Status
Metromedia Fiber Networks (MFN)	Seattle, Portland, San Francisco Bay Area, Los Angeles, Phoenix, Denver, Dallas, Houston, Kansas City, Chicago, Miami, Boston, New York, Washington, D.C., Atlanta	"We have already installed over 1.7 million miles of fiber, and are continuing to execute upon our business plan."	May 2002: "Will continue to operate without interruption," during Chapter 11 proceedings; MFN "has picked up orders from customers even since filing for bankruptcy protection," and the company's networks in cities along the Northeast corridor "as well as in Dallas and Houston, where oil and gas companies have been reliable customers, and in technology-rich Western cities such as San Jose, Calif., San Francisco and Seattle" – are already profitable.
Northeast Optic Network (NEON)	Boston, Hartford, Manchester, Nashua, New York, Newark, Portland, Portsmouth, Providence, Springfield, Stamford, White Plains, Worcester, Washington, D.C.	NEON operates "a 2,500 [route] mile inter-city, regional, and metro high-capacity optical network" with over 100,000 fiber miles, 100 POPs	NEON's operations "continue uninterrupted," during its bankruptcy, and "revenue is growing enough to run the company."
Progress Telecom	Atlanta, Miami, New York, Raleigh, Saint Petersburg, South Florida, Tampa, Washington D.C.	"Progress Telecom's network is comprised of 137,000 fiber miles including 8,400 route miles built with SONET self-healing architecture and over 165 POPs."	Sept. 2002: "Progress Telecom claims its 2001 revenues were up about 40 percent and are continuing to show a steady, albeit slower, growth . . . According to Ron Mudry, Progress Telecom's president and CEO, about 60 percent of the revenues come from metro services, 30 from a combination of metro and long-haul transport, and 10 percent from purely long-haul services."
NEESCom	Providence, Worcester, Metro West (MA region east of Worcester)	NEESCom has deployed "more than 700 route miles of dark fiber."	May 2002: "NEESCom continues to produce positive operating profits before goodwill amortisation."
<i>Sources: See Appendix A.</i>			

Other Fiber Networks. In addition to this new breed of wholesale fiber suppliers, many of the nation's utility companies are now supplying local fiber to CLECs. *See Table 7.* Utility companies control a significant portion of the nation's fiber infrastructure – as much as 35 percent according to one source.⁸⁰ These companies have the advantage of being able to deploy fiber using their existing infrastructure. As one analyst notes, "[i]f a company already has wires or pipes in the ground, the cost of entry is comparatively low."⁸¹ Another analyst notes that

⁸⁰ See J. Krause, *They've Got the Power*, The Industry Standard (Dec. 27, 1999).

⁸¹ I. McDonald, *Butterfly Companies: The Web Has Transformed These Utilities Firms*, The Street.com (Nov. 3, 2000), <http://www.thestreet.com/funds/fundjunkie/1155477.html>.

“roughly half of the new metro networks being built in the United States are being constructed by utilities.”⁸²

Several of the nation’s largest operators of long-haul fiber networks also have constructed metropolitan fiber networks in numerous cities. *See* Table 8. These carriers have sold dark fiber on their long-haul networks to CLECs for many years, and have now begun leasing dark fiber on their metropolitan fiber networks as well. These carriers also have begun providing competitive local services to customers directly.⁸³

⁸² K. Maddox, *New Era, New Partner – Old-Line Manufacturer Chooses Cinergy for Network Build*, tele.com (Mar. 5, 2001) (citing Forrester analyst Maribel Dolinov).

⁸³ Level 3 Press Release, *Level 3 Sells Metropolitan Dark Fiber to District of Columbia* (Jan. 31, 2002) (the District of Columbia City government agreed to lease dark fiber from Level 3 to create a high-speed data network linking government buildings at various locations across the city).

Table 7. Utilities Providing Local Fiber

ConEdison Communications of New York	“ConEdison has embarked on a push to become a fiber-based carrier’s carrier in the New York metro area, and is deploying all new fiber in ConEd’s conduits. . . . ‘If you’re a retail provider and you touch our network at any POP, you could buy whatever unit of bandwidth you want into any building we have on the network,’ [Peter Rust, president and CEO of ConEdison Communications] explained. ‘You could go after that building, sell one or two customers, buy just what you need to cover those two customers and grow the bandwidth as you need it.’”
Progress Telecom	Progress Telecom is “building local metropolitan fiber networks to try to get the capacity out close to the buildings and the consumers where they need it.”
Telergy MidAtlantic	“Business customers in Northern New Jersey and Pennsylvania now have access to a powerful new source for telecommunications services. TMA combines the resources of Telergy’s established telecom network with GPU’s extensive last mile reach and communications construction experience.”
PPL Telecom	PPL Telecom will market its services in five metropolitan areas that company officials believe are underserved – the Lehigh Valley, Lancaster, Harrisburg, Scranton/Wilkes-Barre and Williamsport. “Our fiber, as it exists today, is within half a mile of 20,000 office buildings.”
Bristol Virginia Utilities Board	“Six businesses now have high-speed Internet connections through the city’s fiber-optic network, and two dozen others have requested the service. . . . Several telecommunications companies are interested in leasing the capacity to provide . . . telephone service.”
Alameda Power & Telecom	Alameda Power & Telecom “finalized a \$16 million contract with Evansville, Ind.-based Vectren Communications Services for construction of a hybrid fiber optic/coaxial telecommunications network,” which “will allow the municipal utility to offer telecommunication services to its customers.”
Cinergy Communications	Cinergy Communications (a telecom subsidiary of Cincinnati’s gas and electric provider, Cinergy Corp.) has begun leasing its fiber network that circles Cincinnati.
Edison Carrier Solutions	“San Diego’s Edison Carrier Solutions has built a Southern Cal. network 2nd only to the incumbent phone provider and concentrates on SONET transport, also offering managed wavelength service and dark fiber leasing.”
Electric Power Board of Chattanooga	“EPB, the [Chattanooga] city-owned electric utility, expanded two years ago into telecommunications to capitalize on the utility’s fiber-optic lines originally installed to help with communications for its electricity service.”
El Paso Global Networks	El Paso Global Networks (a subsidiary of natural gas and energy company El Paso Corp.) plans to spend \$2 billion over the next four years on a nationwide fiberoptic network and “plans to overbuild its metropolitan areas to provide better connectivity.”
FPL FiberNet	FPL FiberNet (a subsidiary of the utility holding group that includes Florida Power & Light) has a 2000 mile fiber network in Florida. It provides connectivity to major telecom centers in Florida, “including leading carrier hotels, NAP initiatives, international cable-heads and large central offices.”
Grant County Public Utility District	“GCPUD will provide video services over its existing fiber-optic infrastructure, known as Zipp. When completed in 2005, the Zipp network will contain some 50,000 mi of fiber in its effort to reach 40,000 homes, businesses, and farms throughout Grant County. To date, the network passes about 7,000 homes with approximately 2,000 customers ‘lit’ and receiving services.”
Lafayette Utilities System	“The Lafayette Utilities System has completed a 65-mile, 96-strand fiber-optic loop that offers broadband throughout the city. The loop passes within 1 mile of nearly every home in the city limits.”
Reliant Energy	Operates a 67-route mile fiber backbone in Houston.
Sempra Communications of Los Angeles	“L.A. utility firm Sempra Communications found a technique for running fiber conduit through pipelines without interrupting gas transmission and is attacking the last mile as ‘the gold mine of the [telecom] industry.’”
Touch America (formerly Montana Power)	Owns and operates a 23,000-route-mile, state-of-the-art, high-speed fiber-optic network that will span 26,000-route miles, cross 40 states, and reach more than 140 major cities in 2002. Its network is used for long-haul services and “for Touch America’s own direct connections to individuals and businesses through its wireless services, metropolitan fiber offerings, and private line, long-distance and Internet applications.”
<i>Sources: See Appendix A.</i>	

Table 8. Local Fiber Networks of IXC's That Supply Dark Fiber

Company	Cities with Operational Networks
Williams	Anaheim, Atlanta, Baltimore, Boston, Chicago, Dallas, Houston, Los Angeles, Miami, Minneapolis, New York, Newark, Philadelphia, Phoenix, San Francisco, San Jose, Santa Clara, Seattle, St. Louis, Washington, D.C.
Level 3	Atlanta, Baltimore, Boston, Chicago, Cincinnati, Dallas, Denver, Detroit, Jersey City, Houston, Long Island, Los Angeles, Miami, New York, Newark, Orlando, Philadelphia, Phoenix, San Diego, San Francisco, San Jose, Seattle, St. Louis, Stamford, Tampa, Washington, D.C.
Global Crossing	New York, Philadelphia, Washington, D.C., Atlanta, Miami, Dallas, Chicago, San Francisco, San Jose, Los Angeles
Qwest	Baltimore, Chicago, Dallas/Ft. Worth, Houston, Kansas City, Los Angeles, New York, Sacramento, San Francisco, San Jose, St. Louis, Washington, D.C.
<i>Sources: See Appendix A.</i>	

C. Use of ILEC Special Access Services

In addition to using their own facilities to provide special access services, CLECs and IXC's are purchasing a large number of special access circuits from ILECs that they are reselling to end-user customers together with their own facilities or services. Competing carriers are using ILEC special access circuits in order to provide connections to their interstate networks, as well as to their switched local networks. Competing carriers are purchasing far more high-capacity circuits as special access service than as unbundled network elements. And, as demonstrated below, they have been able to compete successfully on that basis.

In Verizon's region, competing carriers rely overwhelmingly on special access service, not UNEs, for their high-capacity circuits. In the first eight months of 2002, for example, competing carriers as a whole had obtained more than twice as many high-capacity circuits (DS1s and above) as special access than as unbundled network elements. *See* Table 9. Approximately 95 percent of the high-capacity circuits that competing carriers have obtained from Verizon are DS-1 circuits, while the remainder are DS-3 or higher capacity. *See id.* As competitors have acknowledged, they are relying primarily on special access instead of UNEs in other parts of the country too.⁸⁴

⁸⁴ In the Triennial Review proceeding, the Bell companies submitted data demonstrating that, while CLECs are providing business customers with between 17 and 25 million *switched* access lines plus tens of millions of special access lines, they have obtained only about 100,000 unbundled high-capacity loops in the four Bell companies' regions combined. *UNE Fact Report 2002* at IV-6; *UNE Rebuttal Report 2002* at 2. The CLECs explained that they were satisfying virtually all of their demand for high-capacity circuits used for switched local service with either their own facilities or with ILEC special access service. *See, e.g.,* Reply Declaration of C. Michael Pfau on Behalf of AT&T Corp. ¶ 26, *attached to* Reply Comments of AT&T Corp., CC Docket No. 01-338 (FCC filed July 17, 2002) ("At least in AT&T's case, the capacity of loops purchased as special access dwarfs the capacity of loops purchased as UNE-L."); Reply Comments of WorldCom, Inc. at 67, CC Docket No. 01-338 (FCC filed July 17, 2002) ("In reality, a high proportion of the competitive LEC customers not served over UNE loops are served over special access circuits purchased from the incumbents.").

Table 9. CLEC High-Capacity Circuits in Verizon's Region (as of August 2002)		
	DS-1	DS-3 or higher
Special Access	46,000	2,000
UNE/EEL	24,000	<100

Many competing carriers that obtain high-capacity circuits from ILEC do so entirely by purchasing special access service rather than high-capacity loops. In Verizon's region, for example, there are several competing carriers that purchase all of their high capacity circuits exclusively as special access, and many others that rely on special access primarily (though not exclusively) to satisfy their demand for high-capacity circuits. Based on a sample of nine of the largest purchasers of special access, three purchase all of their high-capacity circuits as special access, two additional competing carriers purchase 80 percent or more of all of their high-capacity circuits as special access, and a total of eight competing carriers purchase all of their DS-3 or higher circuits as special access.

Competing carriers that rely exclusively or predominantly on special access service from ILECs to satisfy their demand for high-capacity circuits have clearly been able to compete successfully using that approach. As discussed below, competing carriers have won tens of millions of voice-grade equivalent special access lines using a combination of their own facilities and special access circuits purchased from ILECs. *See* Section I.D., *infra*. They have captured a third or more of all special access revenues. *See* Section I.E., *infra*. And they are competing successfully in providing various services that use special access as an input, such as enterprise long distance services, high-speed data services such as ATM and Frame Relay, and local services provided to large business customers. *See* Section II, *infra*.

Many of the largest individual purchasers of special access service from ILECs likewise have achieved considerable success in the special access market itself, as well as in the markets in which special access is used as an input. AT&T has reported that it satisfies virtually all of its demand for ILEC high-capacity circuits using special access instead of UNEs.⁸⁵ Doing so, in combination with the use of its own facilities, AT&T has become one of the largest special access providers in the country – with nearly \$3 billion in annual special access revenues⁸⁶ and at least 27 million special access lines – and has told investors that it is having great success in this market.⁸⁷ AT&T also is a major – and, in many cases the largest – provider in many of the markets in which ILEC special access is typically used as an input, including enterprise long

⁸⁵ It claims, for example, that it has obtained special access in approximately 11,500 ILEC central offices, and that “over 98%” of its “facilities-based *local* service for business customers using incumbent facilities of DS-1 level or higher is provided over incumbent special access services, not UNEs.” *AT&T's Fea/Giovannucci Triennial Review Decl.* ¶ 26; *AT&T Petition* at 17.

⁸⁶ *See CLEC Report 2002, 16th ed.*, Ch. 6 – AT&T Corp. at 1, 10.

⁸⁷ *See Reply Comments of AT&T Corp.* at 183, n.135, CC Docket No. 01-338 (FCC filed July 17, 2002) (“*AT&T Triennial Review Reply Comments*”); *Transcript of Dorman Oct. 2002 Goldman Sachs Presentation* (then AT&T president David Dorman: “[O]ver 20 percent [] of our T1-equivalent services are on net and we’re growing that every day . . . this is a marketplace where we are clearly competing principally with the RBOCs and perhaps whatever comes out of the WorldCom process that is underway.”).

distance and ATM and Frame Relay services.⁸⁸ AT&T also is thriving in the market for providing local services to large business customers, where it serves more than 3 million lines and reports that its revenues and customer base are rapidly expanding.⁸⁹

WorldCom also satisfies virtually all of its demand for ILEC high-capacity circuits using special access instead of UNEs.⁹⁰ Like AT&T, it is now a major provider of special access service – with more than \$2 billion in annual revenues⁹¹ and tens of million of special access lines – and has achieved great success using special access to compete in the markets for enterprise long distance services and ATM and Frame Relay services.

D. Competitive Special Access Lines and Revenues.

As discussed above, the Commission recognized in the *Pricing Flexibility Order* that competition for special access services is properly measured by the availability of competitive alternatives, rather than by the number of customers that have actually chosen those alternatives.⁹² Courts have likewise held that “a company’s ability to exercise market power depends not only on its share of the market, but also on the elasticities of supply and demand, which in turn are determined by the *availability* of competition.”⁹³ AT&T has similarly claimed that competition should be measured by the “availability of competitive alternatives.”⁹⁴ While this establishes that it is not appropriate to measure special access competition based solely on market-share tests, the fact that competitors have managed to capture substantial numbers of special access lines and large amounts of special access revenues nonetheless provides additional confirmation that competitive alternatives for special access are widespread.

⁸⁸ See, e.g., R. Kaplan, IDC, *U.S. Frame Relay Services Forecast and Analysis, 2001-2006* at Figure 4 (Apr. 2002) (AT&T is one of the top two providers of frame relay, with 33 percent of total frame-relay revenue in 2001) (“*IDC April 2002 Frame Relay Report*”); R. Kaplan, IDC, *U.S. ATM Services Forecast and Analysis, 2001-2006* at Figure 4 (June 2002) (AT&T is one of the top two providers of ATM, with 19 percent of total ATM revenue in 2001) (“*IDC June 2002 ATM Services Report*”); AT&T Corp., Form 10-K (SEC filed Apr. 1, 2002) (“AT&T Business Services is one of the nation’s largest business services communications providers”).

⁸⁹ AT&T, *Earnings Commentary: Quarterly Update – Third Quarter 2002* at 4 (Oct. 22, 2002) (AT&T Business reported that “[l]ocal voice revenue, including reciprocal compensation, grew 5.0% over the prior year. . . . Access lines grew approximately 26% over the prior year with 170 thousand lines being added during the quarter. Local access lines totaled more than 3.4 million at the end of the third quarter.”).

⁹⁰ See Ex Parte Letter from Henry Hultquist, WorldCom, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, and 98-147, at 2 (Oct. 29, 2002) (WorldCom “provisions approximately 90% of its last-mile DS1s over ILEC special access facilities.”).

⁹¹ *CLEC Report 2002, 16th ed.*, Ch. 6 – WorldCom at 1, 6.

⁹² See *Pricing Flexibility Order* ¶ 91 (declining to adopt market-share requirement for measuring special access competition); *id.* ¶ 103 (“we adopt collocation rather than market share as a measure of competitive presence”).

⁹³ *Time Warner Entertainment v. FCC*, 240 F.3d 1126, 1134 (D.C. Cir. 2001) (citing *AT&T Corp. v. FCC*, 236 F.3d 729, 736 (D.C. Cir. 2001)).

⁹⁴ See, e.g., Comments of AT&T Corp. at 2, *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 02-145 (FCC filed July 29, 2002) (stating that the focus in analyzing competition should be on the “availability of competitive alternatives”).

Special Access Lines. Fifteen competing carriers have reported to investors that they serve a total of more than 170 million voice-grade equivalent lines. See Table 10. The vast majority of these lines – roughly 140 million or so – appear to be special access and private lines, while the rest are switched access lines.⁹⁵ AT&T, for example, reports that it served 30 million voice-grade equivalent business lines as of year-end 2001 – some 2.7 million switched access lines, plus 27.3 million voice-grade equivalents that “consist mostly of additional services, principally private line data services that are typically OC-3, OC-12, or OC-48 circuits.”⁹⁶

To put these totals in perspective, the BOCs collectively serve only about 80 million voice-grade equivalent special access lines, including those resold to competing carriers.⁹⁷ Assuming that the BOCs provided approximately 44 percent (35 million) of their voice-grade equivalent special access lines directly to end users – which is the same percentage of special access revenues they generate from end-users⁹⁸ – means that they are providing the other 45 million voice-grade equivalent special access lines to competing carriers. Subtracting that figure from the 140 million voice-grade equivalent special access lines that competitors are providing yields approximately 95 million voice-grade equivalent special access lines that competitors are serving entirely over their own facilities or those of competitive suppliers.⁹⁹

Despite telling investors that it serves 27 million voice-grade equivalent special access lines of its own, AT&T has recently stated to the Commission that, for competing carriers as a whole, “public and verified data show only about 6M VGEs (not physical loops) are self-deployed OR provided by purchasing special access” from ILECs.¹⁰⁰ AT&T is obviously confused. The six- million figure that AT&T cites is the number of *switched* access lines that the FCC categorizes as “CLEC-owned” based on data that CLECs report to the FCC in their Form 477 reports. It does not include any special access lines – either those provided entirely over CLEC facilities, or those provided using resold ILEC special access circuits.

⁹⁵ As of June 2002, CLECs served approximately 17-24 million switched access lines using their own local switches, plus approximately 10 million lines through resale or UNE-P – for a total of roughly 30 million switched access lines. See *UNE Rebuttal Report* at 2; *UNE Fact Report* at I-5. Subtracting that 30 million from the 170 million voice-grade equivalent lines that CLECs report yields 140 million special access lines.

⁹⁶ *AT&T Triennial Review Reply Comments* at 183 n.135.

⁹⁷ FCC, *Statistics of Communications Common Carriers 2001/2002 ed.*, at Table 2.6 (Sept. 2002). Although the BOCs report serving fewer voice-grade equivalent special access line than what the CLECs report, this is likely due to the fact that CLECs have captured many individual customers with very intense demand for high-capacity lines. This reflects the fact that the demand for special access is highly concentrated. Significantly, CLECs have acknowledged that they typically serve their largest customers entirely with their own facilities. See, e.g., *AT&T's Fea/Giovannucci Triennial Review Decl.* ¶ 58 (acknowledging that AT&T often “self-provides DS-3 transport.”).

⁹⁸ See *FCC Telecommunications Industry Revenues, 2000 ed.* at 13 (Table 5, Lines 305 & 312) and 17 (Table 6, Lines 406 & 415).

⁹⁹ According to data reported by the FCC, BOCs generate \$5.9 billion of \$13.3 billion dollars in special access and private line revenues from service to end users. *Id.*

¹⁰⁰ AT&T Presentation, *Loop Unbundling and Impairment*, CC Docket No. 01-338, at 19 (Oct. 7, 2002).

Although the FCC requires CLECs to report the number of special access and private lines they serve,¹⁰¹ the Commission does not include those numbers in its *Local Telephone Competition* report, or otherwise release them to the public. The FCC reports only the total number of “switched access lines” that CLECs provide. As of year-end 2001, CLECs reported that they were serving about 10 million switched access lines – the 6 million “CLEC-owned” switched access lines cited by AT&T, which are defined as lines “provided over CLEC-owned ‘last-mile’ facilities”; plus 4 million switched access lines that CLECs are providing through “UNEs without switching” – that is, by using unbundled loops from ILECs together with the CLECs’ own switch. By definition, the 10 million CLEC switched access lines reported by the FCC excludes CLEC special access lines provided over their own facilities, as well as CLEC special access lines provided through reselling ILEC special access service.¹⁰²

¹⁰¹ In particular, carriers are required to report “special access lines not provided as broadband and private lines that connect an end-user premises to a telecommunications common carrier and is not provided as broadband.” FCC Form 477 – Local Competition and Broadband Reporting at Line C.II-6.

¹⁰² These lines are, however, represented in the counts of facilities-based business lines that the Bell companies have provided to the Commission in the Triennial Review proceeding. See *UNE Fact Report 2002* at IV-6. Those totals are based on the number of E911 listings that CLECs have obtained, as well as on the number of interconnection trunks CLECs have obtained. To the extent that a CLEC is providing switched local services using an ILEC special access circuit it will typically have one or more E911 listings for that circuit, and will have interconnection trunks associated with those lines. See *UNE Rebuttal Report 2002* at 8; *AT&T Triennial Review Reply Comments* at 184 (“when a competitive LEC uses its own switch combined with special access to provide local service, it reports those numbers to the E911 database just as it would if it had deployed its own loops”).

Table 10. CLEC Voice-Grade Equivalent Lines Reported to Investors		
	CLEC-Reported Totals(3Q 2002 or most recent available)	
WorldCom	76.4 million (YE 2001)	<p>“as of December 31, 2000, our domestic local voice grade equivalents had increased 98% to 65.5 million versus the prior year amount.”</p> <p>“Voice Grade Equivalents 2001: 76,415,566”</p> <p>– WorldCom, Inc., Form 10-K (SEC filed Mar. 13, 2002)</p>
AT&T	>40 million (2Q 2002)	<p>“UNE-P lines now represent a little over 15 percent of the voice business access lines and roughly 1 percent of the more than 40 million DS0 equivalents.”</p> <p>– AT&T 2Q Earnings Conference Call (July 23, 2002)</p>
XO	20.9 million (1Q 2002)	<p>“Voice grade equivalents: 20,932,000”</p> <p>– XO Communications Inc., Form 10-Q (SEC filed May 14, 2002)</p>
Time Warner Telecom	17.8 million	<p>“DS-0 Equivalents: 17,793,000” as of 3Q02</p> <p>– Time Warner Telecom Press Release, <i>Time Warner Telecom Announces Third Quarter 2002 Results</i> (Oct. 30, 2002)</p>
Adelphia Bus. Solutions	4.6 million (3Q 2001)	<p>“Voice Grade Equivalent Circuits: 4,624,032”</p> <p>– Adelphia Business Solutions, Form 10-Q (SEC filed Nov. 13, 2001)</p>
KMC Telecom	4.1 million (YE 2001)	<p>“[W]e currently provide over 4.1 million DS-0 equivalents in approximately 820 markets nationwide.”</p> <p>– KMC Telecom Holdings, Inc., Form 10-K (SEC filed May 17, 2002)</p>
Cox	2.2 million	<p>Cox residential phone customers “have more than 700,000 lines”; Cox Business Services serves “more than 1.5 million private line VGE’s.”</p> <p>– Cox, <i>The Case for Cable Telephony</i> at 1 (Oct. 2002)</p>
Allegiance	1.4 million	<p>“Lines in Service: 1,389,200” as of 3Q02</p> <p>– Allegiance Telecom, Form 10-Q (SEC filed Nov. 14, 2002)</p>
Focal	691,000	<p>“Cumulative Net Lines Installed to Date: 691,204” as of 3Q02</p> <p>– Focal Communications, Form 10-Q (SEC filed Nov. 14, 2002)</p>
CTC	615,000 (2Q 2002)	<p>“The Company ended the June 2002 quarter with approximately 615,000 access line equivalents”</p> <p>– CTC Press Release, <i>CTC Communications Group Reports Revenue and Operating Results for the Quarter Ended June 30, 2002</i> (July 30, 2002)</p>
Choice One	550,000	<p>“DS-0 Equivalents: 549,639” as of 3Q02</p> <p>– Choice One Communications, Inc. <i>Selected Operating Statistics, attached to Choice One Press Release, Choice One Reports Third Quarter 2002 Results</i> (Nov. 4, 2002)</p>
CoreComm/ATX	508,200	<p>“Toll-related Access Line Equivalents: 508,200” as of 3Q02</p> <p>– ATX Press Release, <i>ATX Communications, Inc. Announces Financial Results for the Third Quarter of 2002</i> (Nov. 14, 2002)</p>
PaeTec	344,000	<p>PaeTec “has installed 344,256 access line equivalents . . . as of September 30, 2002.”</p> <p>– PaeTec Press Release, <i>PaeTec Exceeds 344,000 Access Lines</i> (Oct. 15, 2002)</p>
Pac-West	324,000	<p>“Total DS-0 equivalent lines in service, which include SP and SME DS-0 line equivalents, were 324,100 at the end of the third quarter of 2002.”</p> <p>– Pac-West Press Release, <i>Pac-West Telecom Announces Third Quarter 2002 Results and Cash Tender Offer and Related Consent Solicitation</i> (Nov. 11, 2002)</p>
Integra	>143,000 (2Q 2002)	<p>Integra “currently serve[s] over 143,000 lines.”</p> <p>– Integra Telecom, <i>Business Profile – July 2002</i>, http://www.integratelecom.com/pdfs/BusinessProfileJuly2002.pdf</p>
Total	170.6 million	

Special Access Revenues. The leading independent study of the CLEC industry – New Paradigm Resources Group’s *CLEC Report 2002* – reports that CLECs earned approximately \$10 billion in special access and private line revenues in 2001.¹⁰³ ALTS – a CLEC trade association – relies on that source in formulating its own annual reports of the state of the CLEC industry.¹⁰⁴ By comparison, according to the FCC’s most recent *Telecommunications Industry Revenues* report, the Bell companies earned approximately \$13 billion in the provision of special access revenues in 2000 – the most recent year for which such data are available.¹⁰⁵ Factoring in a year’s worth of growth (at historical growth rates) brings that total up to \$18 billion for 2001.¹⁰⁶ Based on these figures, competing carriers have now captured more than one-third of all revenues for special access services.

In the past, AT&T has argued that competing carriers generate less than one-quarter of all special access revenues.¹⁰⁷ To arrive at this result, AT&T has relied on the FCC’s *Telecommunications Industry Revenue* report to estimate CLEC special access revenue, instead of on New Paradigm’s *CLEC Report*. The problem with using the FCC’s revenue data to estimate CLEC special access revenues is that several CLECs – including the two largest, AT&T and WorldCom – report their special access revenues as both CLECs and “toll carriers.”¹⁰⁸ For example, when AT&T and WorldCom use their local facilities to supply special access to their long distance network, they typically report that revenue as toll carriers.¹⁰⁹ CLECs that rely on

¹⁰³ See *CLEC Report 2002*, 16th ed., Ch. 3 at Table 13; ALTS, *The State of Local Competition 2002*, Annual Report at 18 (Apr. 2002). In analyzing special access competition, New Paradigm’s *CLEC Report 2002* takes the same approach as the FCC’s own local competition surveys, and treats special access and local private line service as a single category. See Ind. Anal. Div., FCC, *Local Competition: August 1999* at Table 2.4 (Aug. 1999) (computing CAP/CLEC market share of “Local private line and special access service”).

¹⁰⁴ See ALTS, *The State of Local Competition 2002*, Annual Report at 18 (Apr. 2002). The other major CLEC trade association – CompTel – has recently commissioned New Paradigm to prepare a report on the state of competitive local investment. See New Paradigm Resources Group, Inc., *Measuring the Economic Impact of the Telecommunications Act of 1996: Telecommunications Capital Expenditures (1996-2001)* at Table 21, prepared for CompTel (Oct. 2002).

¹⁰⁵ *FCC Telecommunications Industry Revenues*, 2000 ed. at 13 (Table 5, Lines 305 & 312) and 17 (Table 6, Lines 406 & 415). Special access revenues are the sum of two revenue categories: “local private line and special access” and “long distance private line services.” The FCC defines “long distance private line services” to “include revenues from dedicated circuits, private switching arrangements, and/or predefined transmission paths, extending beyond the basic service area. This category should include revenues from the resale of special access services.” FCC, *Telecommunications Reporting Worksheet, FCC Form 499-A, Instructions for Completing the Worksheet for Filing Contributions to Telecommunications Relay Service, Universal Service, Number Administration, and Local Number Portability Support Mechanisms* at 20 (Feb. 2001) (emphasis added). AT&T has acknowledged that special access revenues represent the sum of these two categories. See *AT&T’s Pfau 2001 Special Access Decl.* ¶¶ 13-14.

¹⁰⁶ Applying the 1999-2000 growth rate. See *FCC Telecommunications Industry Revenues*, 1999 ed. at 11 (Table 5, Lines 305, 312) and 15 (Table 6, Lines 406, 415); *FCC Telecommunications Industry Revenues*, 2000 ed. at 13 (Table 5, Lines 305 & 312), 17 (Table 6, Lines 406 & 415).

¹⁰⁷ See, e.g., AT&T Reply Comments at 17-19, CC Docket No. 96-98 (FCC filed Apr. 30, 2001) (arguing that CLEC’s special access market share is closer to 22 percent); *AT&T’s Pfau 2001 Special Access Decl.* ¶¶ 5-21.

¹⁰⁸ See *AT&T’s Pfau 2001 Special Access Decl.* ¶ 16 (“Arguably, MCI/WorldCom and AT&T fall within the category of ‘Toll Carrier’ and, as a result, any self-supplied special access may not be included in the CLEC figure.”).

¹⁰⁹ See *id.* ¶ 17 (“self-supplied access would not be encompassed in the figures and, hence, the need for an adjustment”).

the FCC data ignore that revenue, which is substantial. At the same time, it is difficult to quantify that revenue. Not all of the local and long distance private line revenue that these carriers report as toll carriers is necessarily special access revenue, and there is no precise way to back out the portion that is.¹¹⁰

In any event, even using FCC data and methodologies endorsed by CLECs yields a very high CLEC market share. According to the most recent *Telecommunications Industry Revenues* report, CLECs and IXCs earned \$4.2 billion in the provision of local private line and special access and long distance private line services in 2000.¹¹¹ AT&T also has acknowledged that the access that AT&T and WorldCom supply to themselves was worth approximately \$900 million as of 1999.¹¹² Assuming that the value of these two carriers' self-supplied special access increased in the last two years (2000 and 2001) by the same amount as it did in previous years (1999), the value of this self-supply was approximately \$1.3 billion in 2001.¹¹³ That brings total CLEC special access revenues to \$5.5 billion under FCC data. This represents a market share of approximately 30 percent.¹¹⁴

II. COMPETITION FOR SERVICES THAT USE SPECIAL ACCESS AS AN INPUT

Special access is frequently used as an input to provide various services – including long distance, ATM, Frame Relay, and switched local services – to large business customers. The big three interexchange carriers dominate the provision of long distance, ATM, and Frame Relay services to large businesses, while the Bell companies are only minor players. In the provision of switched local services to business customers, CLECs have already captured between 17 and 24 million switched lines, and these totals are growing rapidly. While competitors have long claimed that ILECs have theoretical incentives to discriminate in the provision of special access, the success of competitors in providing services that rely on special access as an input proves that no such discrimination is actually occurring. CLECs have instead been able to obtain access

¹¹⁰ See *AT&T's Pfau 2001 Special Access Decl.* ¶¶ 16-17 (acknowledging that the FCC data is incomplete and estimating the percentage of AT&T's and MCI WorldCom's "toll carrier" revenues which are actually from special access to make an "adjustment" to the special access market share calculation).

¹¹¹ *FCC Telecommunications Industry Revenues, 2000 ed.* at 14 (Table 5, Lines 305 & 312), 18 (Table 6, Lines 406 & 415).

¹¹² *AT&T's Pfau 2001 Special Access Decl.* ¶ 16.

¹¹³ *AT&T's Pfau 2001 Special Access Decl.* ¶ 16 (value of AT&T and WorldCom self-supply increased from \$627 million in 1998 to \$856 million in 1999).

¹¹⁴ This figure is undoubtedly too low. It excludes completely any special access revenue that AT&T and other interexchange carriers report as long distance private line revenue and that is earned by reselling the services of other CLECs and ILECs. This amount is substantial, as the interexchange carriers are the largest special access customers of both many CLECs and the ILECs, and purchase such services in order to resell them to end users. AT&T has acknowledged that adding this total to CLEC local access and private line revenue would bring total special access revenues in line with the totals reported by New Paradigm. See *AT&T's Pfau 2001 Special Access Decl.* ¶ 19 n.4. AT&T has nonetheless argued that it is appropriate to exclude such revenues because the ILECs do not typically compete in the provision of long distance private line service. But the extent to which ILECs provide long distance private service obviously is irrelevant; the only relevant question is the extent to which competing carriers provide private line and special access services that compete with the private line and special access service that ILECs provide.

to special access facilities at prices that enable them to compete – either by deploying such facilities themselves, leasing them from other competitive suppliers, or by reselling special access service obtained from ILECs.

Enterprise Long Distance Services. Special access is used in large part to provide large business customers dedicated connections to long distance networks.¹¹⁵ It is frequently sold as a bundle together with the long-distance transport itself. As noted above, approximately half of Verizon’s special access revenues are generated by the three big IXC’s, while another 10 percent is generated by other smaller interexchange carriers.

Today, AT&T, WorldCom, and Sprint dominate the provision of long distance service to large business customers. As a group of large customers recently informed the WorldCom bankruptcy court, these three carriers “account for over 90% of enterprise telecommunications usage and are widely viewed as the only interexchange carriers capable of providing the full suite of network services required by major corporations.”¹¹⁶ The Department of Justice has likewise found that “[n]early all large businesses look to AT&T, WorldCom, and Sprint for competitive [Custom Network Service] bids, and a significant number are unwilling to give serious consideration to any carrier other than the Big 3.”¹¹⁷ The Bell companies have only recently begun providing long distance service to business customers in some states. Analysts recognize that the Bell companies face enormous challenges in competing against the entrenched incumbents in these markets.¹¹⁸ AT&T has recently stated that Verizon has “a long way to go” before it will be able to build a long-distance network that competes effectively against AT&T’s.¹¹⁹

¹¹⁵ The Commission has recognized that there is a distinct market for long distance services provided to larger business customers. *Application of WorldCom, Inc. and MCI Communications Corp. for Transfer of Control of MCI Communications Corp. to WorldCom*, Memorandum Opinion and Order, 13 FCC Rcd 18025, ¶ 26 (1998) (“*WorldCom/MCI Order*”). The Commission deregulated long distance services provided to large business customers several years before it deregulated mass-market long distance services. See *Competition in the Interexchange Marketplace*, Report and Order, 6 FCC Rcd 5880 (1991); *Competition in the Interexchange Marketplace*, Second Report and Order, 8 FCC Rcd 3668 (1993).

¹¹⁶ Motion of the Ad Hoc Committee of WorldCom Enterprise Customer for Entry of an Order Directing the United States Trustee To Appoint an Official Committee of Enterprise Customers Pursuant to 11 U.S.C. § 1102(a)(2), *WorldCom, Inc., et al.*, Chapter 11 Case No. 02-13533-AJG, at 6 (filed Oct. 8, 2002).

¹¹⁷ Complaint ¶ 158, *United States v. WorldCom, Inc. and Sprint Corp.*, No. 00-CV-1526 (D.D.C. filed June 27, 2000). The Department of Justice noted that “[l]arge businesses typically purchase a substantial majority of their telecommunications services in a bundle of customer network services (‘CNS’) that is tailored to meet their particular needs.” Although the requirements of these large businesses vary, most large business customers require outbound long distance voice, in-bound/toll-free voice services, data network services, ancillary services such as teleconferencing and broadcast fax, Internet services such as dedicated access, and international voice and data services. *Id.* ¶ 149.

¹¹⁸ See, e.g., J. Halpern, *et al.*, Bernstein Research Call, *AT&T: Gauging the Benefits to AT&T When the Wheels Fly Off at WorldCom* at 4 (Sept. 17, 2002) (“At present, only AT&T, WorldCom, Sprint and, to a lesser degree, Qwest, have been able to satisfactorily provide a more or less full suite of services to large corporate customers.”); R. Krause, *Bells On Brink Of Going Long Distance*, Investor’s Business Daily (Aug. 2, 2002).

¹¹⁹ See B. Charny, *Verizon Hungers for Corporate Data*, CNET News.com (Nov. 4, 2002), <http://news.com.com/2100-1033-964419.html>.

ATM and Frame Relay Services. The Commission has recognized that large business consumers typically use different high-speed technologies than mass-market consumers.¹²⁰ The two most common packet-switched services provided to large business customers are ATM and Frame Relay.¹²¹ Special access is used extensively to provide large business customers access to ATM and Frame Relay networks.

The largest providers of both Frame Relay and ATM services are AT&T, WorldCom, and Sprint, which control two-thirds or more of the nationwide market for these services. *See* Figure 2.¹²² As one analyst has noted, “[t]he Big 3 IXC’s own the U.S. frame relay market, have scale economies and are best positioned to influence users and move the market.”¹²³ AT&T describes itself as “the frame relay market leader”¹²⁴ and reports “healthy growth in high-speed private line facilities” and in “frame and ATM ports.”¹²⁵ By contrast, the Bell companies collectively represent less than 15 percent of nationwide ATM and Frame Relay revenues.¹²⁶ And as noted by industry analysts and CLECs alike, Bell companies are currently limited in their ability to compete in the provision of ATM and Frame Relay to large business customers offerings due to restrictions on the provision of interLATA services.¹²⁷ Analysts also note that,

¹²⁰ *WorldCom/MCI Order* ¶ 26 (“larger business users often demand advanced long distance features (advanced features), such as frame relay, virtual private networks (VPN), and enhanced 800 services (E800 services), that differ from the services generally demanded by mass market consumers.”).

¹²¹ R. Kaplan, IDC, *U.S. Packet/Cell-Based Services Market Forecast and Analysis, 2000-2005* at 1 (Mar. 2001) (ATM and Frame Relay accounted for over 96 percent of revenues in the packet/cell-based services market in 2000).

¹²² *See IDC June 2002 ATM Services Report* at Figure 4 (AT&T, WorldCom, and Sprint together accounted for 64.1 percent of revenues for ATM in 2001); *IDC April 2002 Frame Relay Report* at Figure 4 (AT&T, WorldCom, and Sprint together accounted for 77.0 percent of revenues for frame relay in 2001); Stratecast Partners, *ATM and Frame Relay Market Assessment, Data/Internet Services Growth Strategies*, Vol. II, No. 10, at 10 (Sept. 2001) (“Tier 1 service providers continue to dominate the U.S. market, controlling over 70% of the market.”) (“*Stratecast ATM/Frame Relay Report*”); *id.* at 17 (“In 2000, AT&T held the largest share of ATM service revenues, with a 36% share of [the] market; WorldCom and Sprint held the second and third leading position in the market with shares of 26% and 22%, respectively. As in the frame relay market, the RBOCs collectively represent a small share of the ATM services market.”).

¹²³ *Stratecast ATM/Frame Relay Report* at 12.

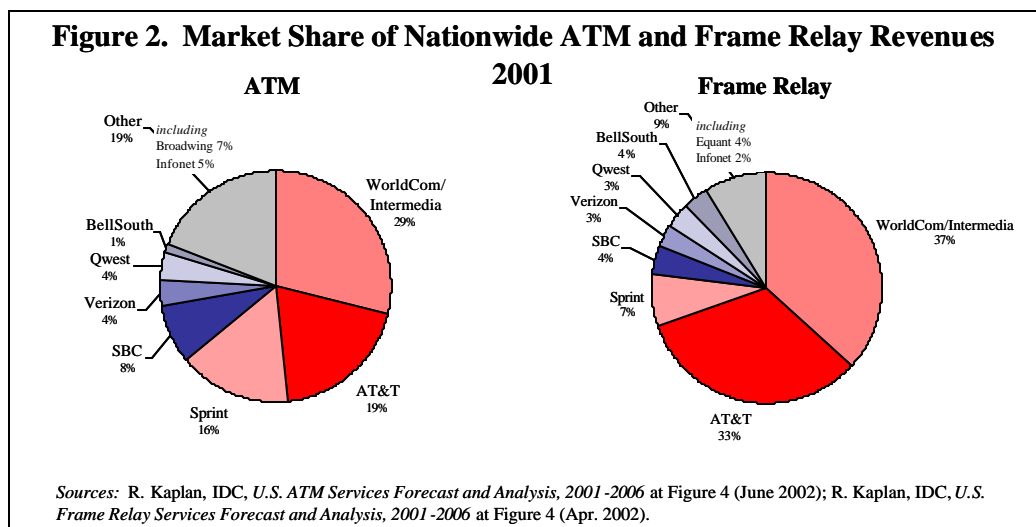
¹²⁴ AT&T Corp., *AT&T Frame Relay and ATM Services Brochure*, <http://www.business.att.com/content/productbrochures/MS-8151-02.pdf>; AT&T News Release, *AT&T Reports Precedent-Setting “Five Nines” Performance On Its Market-Leading Frame Relay Network* (July 24, 2000).

¹²⁵ *Q2 2002 AT&T Earnings Conference Call*, Financial Disclosure Wire, Transcript 072302au.729 (July 23, 2002).

¹²⁶ *See IDC June 2002 ATM Services Report* at Figures 1 & 4 (Total BOC share of the nationwide ATM market is 14 percent); *IDC April 2002 Frame Relay Report* at Figure 4 (Total BOC share of the frame relay market is 16.5 percent). The Bell companies’ total share of the combined ATM/frame relay market is 14.4 percent. *See id.*; *IDC June 2002 ATM Services Report* at Figures 1 & 4.

¹²⁷ *See, e.g., Stratecast ATM/Frame Relay Report* at 12 (“Thus far, the RBOCs have held a very small share of the frame relay market, primarily because they have only been allowed to offer intra-LATA services.”); *Frost & Sullivan - New Demands for Capacity Increase Competition Among Packet Data Providers*, PR Newswire (Oct. 4, 1999) (“Because users can be exposed to a wide array of data access technologies, the ability to offer seamless, end-to-end service is becoming critical to winning new customers.”) (quoting Isabelle Gallo, Frost and Sullivan Telecommunications Industry Analyst). *See also* WorldCom, *Metro Frame Relay Service*,

even when they are permitted to compete on a level playing field, they will face an uphill battle competing with the big three incumbents.¹²⁸



Local Services for Large Business Customers. As explained above, CLECs are now obtaining special access from ILECs in order to connect large business customers to the CLEC's own local networks. Competition has been thriving in this segment of the local market. In the Bell companies' territory, CLECs now serve between 13 and 20 million switched access lines using their own last-mile facilities, or those of other suppliers (including ILECs).¹²⁹ This represents between 20 and 28 percent of all business lines within the BOCs' territories.¹³⁰ In the last three years alone, CLECs' share of the switched access lines provided to business customers has more than doubled.¹³¹ ALTS has recently stated that "CLECs are collectively on course to generate positive EBITDA in 2002, probably for the first time in their history."¹³² According to

<http://www.worldcom.com/us/products/datanetworking/framrelay/metro> (WorldCom's Metro Frame Relay service "offers an aggressive price position compared to that offered by LECs. LECs can offer local (intraLATA) service, but they aren't able to cross LATA boundaries or move into other Regional Bell Operating Company (RBOC) territories.").

¹²⁸ See, e.g., J. Halpern, et al., Bernstein Research Call, *AT&T: Gauging the Benefits to AT&T When the Wheels Fly Off at WorldCom* at 2 (Sept. 17, 2002) ("Our expected-value scenario analysis leads us to believe that AT&T stands to gain 100-400bp of share of the large corporate data market over the next three years as the RBOCs struggle to define their Fortune 1000 strategy and learn the basics of provisioning super-regional, national, and international data networks.").

¹²⁹ See *UNE Fact Report 2002* at IV-1 – IV-2.

¹³⁰ See *UNE Fact Report 2002* at IV-3.

¹³¹ See *UNE Fact Report 2002* at Table I-5; *FCC July 2002 Local Competition Report* at 5, Table 2 (showing an increase in CLEC share of the switched access lines provided to business customers from 10 percent at year-end 1999 to 21 percent at year-end 2001).

¹³² ALTS, *Progress Report on the CLEC Industry* at i, 5 (Oct. 17, 2002).

ALTS, “now we see solid, well-financed companies [ready] to compete head-to-head with Bell companies.”¹³³

¹³³ *CLEC Industry Will Revive in 2003, Report Says*, Communications Daily at 4 (Oct. 18, 2002).

APPENDIX A. ADDITIONAL SOURCES

Table 1. Special Access Competition (as of YE 2001)

CLEC Fiber Route Miles (local and longhaul). New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 4 at Table 13 (15th ed. 2002) (This is a highly conservative estimate. It does not include 117,000 route-miles of fiber that NPRG lists for competitive Independent Operating Companies, utility CLECs, data providers, or Gig-E providers. Moreover, the total miles for 2001 have been adjusted downward to address the concerns that CLECs raised in the Special Access proceeding in April 2001 (CC Docket No. 96-98)). **CLEC Networks in the Top 150 MSAs.** New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 6 (15th ed. 2002). **CLEC Buildings Served OnNet.** See Joint Comments of Allegiance Telecom, Inc. and Focal Communications Corporation at 25, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98 (FCC filed June 11, 2001); Comments of WorldCom, Inc. at 7, CC Docket No. 96-98 (FCC filed June 11, 2001). **CLEC Buildings Served OffNet.** New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 4 at Table 19 (15th ed. 2002). This is a highly conservative estimate. It excludes not only the buildings served by literally dozens of CLECs, but also does not include the 27,000 additional buildings NPRG reports for competitive Independent Operating Companies, utility CLECs, data providers, Gig-E providers, fiber layers, and other providers, as well as the 30,000 on-net buildings reported by CLECs themselves, as noted above. See *id.* Moreover, the total buildings have been adjusted downward to address the concerns that CLECs raised in the Special Access proceeding in April 2001 (CC Docket No. 96-98). **CLEC Voice-Grade-Equivalent Special Access Lines.** See Table 10. CLEC Voice-Grade Equivalent Lines Reported to Investors. **CLEC Special Access Revenues.** New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 3 at Table 12 (16th ed. 2002).

Table 2. FCC Findings

1990. *Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, Order, 5 FCC Rcd 7507, ¶ 210 (1990). **1991.** *Expanded Interconnection with Local Telephone Company Facilities*, Notice of Proposed Rulemaking and Notice of Inquiry, 6 FCC Rcd 3259, ¶ 2 (1991). **1991.** Richard M. Firestone, Chief, Common Carrier Bureau, FCC, “Telecommunications Policy and Regulation,” remarks before the Ninth Annual FCBA/PLI Conference (Dec. 2, 1991). **1992.** *Expanded Interconnection with Local Telephone Company Facilities, Amendment of Part 36 of the Commission’s Rules and Establishment of a Joint Board*, Second Notice of Proposed Rulemaking, 7 FCC Rcd 7740, ¶ 7 (1992). **1992.** *Transport Rate Structure and Pricing Petition for Waiver of the Transport Rules filed by GTE Service Corporation*, Report and Order and Further Notice of Proposed Rulemaking, 7 FCC Rcd 7006, ¶ 2 (1992). **1992.** *Expanded Interconnection with Local Telephone Company Facilities, Amendment of the Part 69 Allocation of General Support Facility Costs*, Report and Order and Notice of Proposed Rulemaking, 7 FCC Rcd 7369, ¶ 4 (1992). **1995.** *Price Cap Performance Review for Local Exchange Carriers*, First Report and Order, 10 FCC Rcd 8961, ¶ 25 (1995). **1995.** FCC News Release, *Common Carrier Competition*, 1995 FCC LEXIS 3544 (rel. May 31, 1995). **1996.** *Access Charge Reform*, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, 11 FCC Rcd 21,354, ¶ 278 (1996). **1998.** *Applications of Teleport Communications Group Inc., Transferor, and AT&T Corp., Transferee, for Consent to Transfer Control of Corporations Holding Point-to-Point Microwave Licenses and Authorizations to Provide International Facilities-Based and Resold Communications Services*, Memorandum Opinion and Order, 13 FCC Rcd 15236, ¶ 27 & n.90 (1998). **1998.** Ind. Anal. Div., FCC, *Local Competition* at 1 (Dec. 1998). **2000.** *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Supplemental Order Clarification, 15 FCC Rcd 9587, ¶ 18 (2000). **2000.** *Promotion of Competitive Networks in Local Telecommunications Markets*, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, Fifth Report and Order and Memorandum Opinion and Order in CC Docket No. 96-98, and Fourth Report and Order and Memorandum Opinion and Order in CC Docket No. 88-57, 15 FCC Rcd 22983, ¶ 18 (2000).

Table 3. IXC Use of Competitive Access Networks

Kessler Marketing Intelligence, *Alternative Local Carriers with Fiberoptic Metropolitan Area Networks* at 24 (Aug. 1989). AT&T News Release, *AT&T, Five Companies Sign Alternative Access Agreements* (Apr. 11, 1996). AT&T News Release, *Brooks Fiber Expanded Agreement with AT&T Covers Additional Cities* (Feb. 20, 1997). F.J. Governali, et al., Credit Suisse First Boston Corporation, Investext Rpt. No. 2563177, Teleport Communications Group, Inc. – Company Report at *6 (July 7, 1997). D.P. Reingold, Merrill Lynch Capital Markets, Investext Report No. 2728065, AT&T – Company Report at *8 (Jan. 12, 1999). E. Struminger, PaineWebber, Inc., Investext Report No. 2908948, MCI WorldCom – Company Report at *3 (July 30, 1999). Comments of Sprint Corporation, Attachment E: Declaration of Roberk Runke ¶ 8, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98 (FCC filed May 26, 1999). Comments of Sprint Corporation at 34, CC Docket No. 96-98 (FCC filed May 26, 1999). Comments of MCI WorldCom, Inc. at 64, CC Docket Nos. 96-98, 95-185 (FCC filed May 26, 1999). E. Struminger, PaineWebber, Inc., Investext Report No. 2930537, Telecom Services: Industry Update – Industry Report at *5 (Aug. 19, 1999). *Hi-Cap Competition* at 6, attached to Ex Parte Letter from Ruth Milkman, Counsel, WorldCom, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, and 98-147 (Oct. 7, 2002). *UNE Review Issues* at 1, attached to Ex Parte Letter from John Benedict, Senior Attorney, Sprint, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, and 98-147 (Oct. 16, 2002). Comments of Sprint Corporation at n.28, *Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al.*, CC Docket Nos. 01-338, 96-98, and 98-147 (FCC filed Apr. 5, 2002). Fea/Giovannucci Declaration, ¶ 49, n. 23, attached to Reply Comments of AT&T Corp., CC Docket Nos. 01-338, 96-98, and 98-147 (FCC filed July 17, 2002). Fea/Giovannucci Declaration, ¶ 50, attached to Reply Comments of AT&T Corp., CC Docket Nos. 01-338, 96-98, and 98-147 (FCC filed July 17, 2002). Declaration of C. Michael Pfau, ¶ 44, attached to Reply Comments of AT&T Corp., CC Docket No. 96-98 (FCC filed Apr. 30, 2001). D. Goldsmith, Buckingham Research Group, Inc., Investext Rpt. No. 2430215, Time Warner Telecom Inc.: Initiating Coverage – Company Report at *3 (Jan. 10, 2001).

Table 4. Major Competitive Providers of Special Access

AT&T. New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 6 – AT&T Corp. at 1, 10 (16th ed. 2002). **WorldCom.** *CLEC Report 2002*, Ch. 6 – WorldCom, Inc. at 1, 6 (16th ed. 2002). **Qwest.** *CLEC Report 2002*, Ch. 6 – Qwest at 1, 5 (16th ed. 2002). **Time Warner Telecom.** *CLEC Report 2002*, Ch. 6 – Time Warner Telecom, Inc. at 1, 10 (16th ed. 2002). **XO Communications.** *CLEC Report 2002*, Ch. 6 – XO Communications at 1, 8 (16th ed. 2002). **IDT/WinStar.** *CLEC Report 2002*, Ch. 6 – Winstar Communications at 1, 6 (16th ed. 2002). **ICG Communications.** *CLEC Report 2002*, Ch. 6 – ICG Communications at 1, 6 (16th ed. 2002). **ITC^DeltaCom.** *CLEC Report 2002*, Ch. 6 – ITC^DeltaCom, Inc. at 1, 6 (16th ed. 2002). **McLeodUSA.** *CLEC Report 2002*, Ch. 6 – McLeodUSA, Inc. at 1, 6 (16th ed. 2002). **KMC Telecom.** *CLEC Report 2002*, Ch. 6 – KMC Telecom, Inc. at 1, 4 (16th ed. 2002). **General Communications, Inc.** *CLEC Report 2002*, Ch. 6 – General Communications, Inc. at 1, 6 (16th ed. 2002). **Adelphia Business Solutions.** *CLEC Report 2002*, Ch. 6 – Adelphia Business Solutions

at 1, 5 (16th ed. 2002). **BTI Telecom.** *CLEC Report 2002*, Ch. 6 – BTI Telecom Corp. at 1, 5 (16th ed. 2002). **NTS Communications.** *CLEC Report 2002*, Ch. 6 – NTS Communications at 1, 5 (16th ed. 2002). **Cablevision Lightpath.** *CLEC Report 2002*, Ch. 6 – Qwest at 1, 5 (16th ed. 2002). **Cablevision Lightpath.** *CLEC Report 2002*, Ch. 6 – Cablevision Lightpath, Inc. at 1, 6 (16th ed. 2002). **Cox Communications.** *CLEC Report 2002*, Ch. 6 – Cox Communications at 1, 6 (16th ed. 2002).

Table 5. Average Number of CLEC Networks by MSA
New Paradigm Resources Group, Inc., *CLEC Report 2002*, Ch. 5 (15th ed. 2002).

Table 6. Wholesale Local Fiber Suppliers

American Fiber Systems. E. Gubbins, Dave Rusin, CEO, *American Fiber Systems*, Telephony (May 13, 2002); American Fiber Systems Press Release, *American Fiber Systems Poised to Eliminate Bandwidth Bottleneck in 131 American Cities* (Aug. 9, 2000); *American Fiber Systems Solves the Bandwidth Shortage in Mid-sized U.S. Cities*, Business Wire (Dec. 11, 2000). **Fibertech Networks.** Fibertech Networks, *Our Networks, Current Markets*, http://www.fibertech.com/net_current.cfm (as of Nov. 21, 2002); Fibertech Networks, *Our Networks, Future Markets*, http://www.fibertech.com/net_future.cfm (as of Nov. 21, 2002); Fibertech Networks Press Release, *Choice One Activates Fiber Ring in Pittsburgh, Pennsylvania* (Feb. 18, 2002); Fibertech Networks Press Release, *Fibertech Networks Significantly Expands Network Footprint* (March 20, 2002). **Yipes.** Yipes Enterprise Services Press Release, *Yipes Enterprise Services Emerges as Newly Funded Company Poised for Growth* (July 9, 2002); Yipes Enterprise Services, *Technology*, <http://www.yipes.com/technology/> (as of Nov. 21, 2002); Yipes Press Release, *Norwest Venture Partners (NVP) Leads Series A Round of Funding in Yipes Enterprise Services* (July 9, 2002). **OnFiber.** OnFiber, *Our Network/Locations*, <http://www.onfiber.com/interior.asp?section=network&page=locations> (as of Nov. 22, 2002); OnFiber, *About/Overview*, <http://www.onfiber.com/interior.asp?section=about> (as of Nov. 22, 2002); OnFiber News Release, *OnFiber Acquires Telseon Assets* (Aug. 6, 2002); OnFiber News Release, *OnFiber Reports Strong Growth in First Half 2002* (July 15, 2002). **Looking Glass.** Looking Glass Networks, *Our Network*, <http://www.lglass.net/network/index.jsp> (as of Nov. 21, 2002); Looking Glass Networks Press Release, *Looking Glass Networks Awarded Over \$60 Million Dollars in Lit Services, Dark Fiber and Collocation Contracts* (Aug. 20, 2002). **Metromedia Fiber Networks.** Metromedia Fiber Networks, *Network: MFN Metropolitan Fiber Maps*, <http://www.mfn.com/network/usmaps.shtm> (as of Nov. 22, 2002); Metromedia Fiber Networks, *Network: One Network*, <http://www.mfn.com/network/index.shtm> (as of Nov. 22, 2002); A. Drury, *Metromedia Fiber Network Rose Fast, Fell Hard*, Journal News (Aug. 22, 2002). **Northeast Optic Network.** NEON Communications, *Frequently Asked Questions*, <http://www.neoninc.com> (as of Nov. 22, 2002); NEON Communications Press Release, *NEON Communications to Complete Financial Restructuring and Reduce Debt by Approximately \$250 Million Through a Negotiated Chapter 11 Filing* (June 26, 2002); *Fastest-Growing Companies: Stock Market Catches Up to Once High-flying Companies*, Boston Bus. J. (Sept. 13, 2002). **Progress Telecom.** Progress Telecom, *Our Network: Network Coverage Area*, http://www.progresstelecom.com/our_network/network_cov_area.html (as of Nov. 22, 2002); Progress Telecom, *Our Network: Network Statistics*, http://www.progresstelecom.com/our_network/network_statistics.html (as of Nov. 22, 2002); S. Masud, *Making Headway: Progress Telecom Says Metro/LH Strategy Paying Off*, Telecomflash.com (Sept. 26, 2002), <http://telecomflash.com/default.asp?journalid=5&func=articles&page=090303&year=2002&month=9&rsno=3>. **NEESCom.** NEESCom, *Metro Rings*, http://www.neescom.com/prod_servc/metro/index.htm (as of Nov. 22, 2002); NEESCom, *Company*, <http://www.neescom.com/company/index.htm>; *National Grid Group – Financial Results*, The Regulatory News Service (May 30, 2002).

Table 7. Utilities Providing Local Fiber

ConEdison. E. Krapf, *Another Last Mile for Fiber Access: Briefing*, Bus. Comm. Review (Jan. 1, 2002). **Progress Telecom.** *Progress Telecom Appears on Alexander Haig's World Business Review TV Series, Discusses Telecommunication Solutions for Electric Utility Infrastructure*, Bus. Wire (Oct. 30, 2000). **Telergy MidAtlantic.** *Telergy MidAtlantic Begins Marketing Services. Santaliz Named General Manager*, PR Newswire (Apr. 3, 2001). **PPL Telecom.** C. Berg, *PPL Launching Telecommunications Business: Allentown Company Will Provide Telephone, Internet Services*, Morning Call (Jan. 22, 2002). **Bristol Virginia Utilities Board.** *City Utility Extends High-Speed Internet Connections to Businesses*, Associated Press State & Local Wire (May 22, 2001). **Alameda Power & Telecom.** Briefs, American City & County (Apr. 2001). **Cinergy.** K. Maddox, *New Era, New Partner – Old-Line Manufacturer Chooses Cinergy for Network Build*, Tele.com (Mar. 5, 2001). **Edison Communications.** L. Trager, *Utilities Still Aim to Compete in Broadband Market*, Washington Internet Daily (Jan. 23, 2002). **Electric Power Board.** D. Flessner, *Collapse Doesn't Ruin City's Vision*, Chattanooga Times/Chattanooga Free Press (Feb. 10, 2002). **El Paso Global Networks.** L. LaBarba, *Someone Is Still Spending*, Telephony (Feb. 26, 2001). **FPL FiberNet.** P. Patterson, ABN AMRO Bank N.V. U.S.A., Investext Rpt No. 8340873, *Company Report – FPL Group at #4* (Jan. 18, 2002); *FPL FiberNet Announces Lighting of Florida Metros*, PR Newswire (Mar. 7, 2001). **Grant County Public Utility District.** R. Pease, *Rural Washington County Pioneers Optical Broadband Services*, Lightwave (Feb. 2002). **Lafayette Utility System.** A. Simoneaux, *Lafayette Utilities Adopts Fiber Optics for Communications*, Advocate (Feb. 4, 2002). **Reliant Energy Communications.** *Reliant Energy Communications Opens Austin Internet Data Center*, PR Newswire (Feb. 26, 2001). **Sempre Communications.** L. Trager, *Utilities Still Aim to Compete in Broadband Market*, Washington Internet Daily (Jan. 23, 2002) (quoting Sempra President Michael Allman). **Touch America.** *Telecom Company Touch America Completes Transformation, Emerges as Unique Broadband Network and Services Entity; Becomes Debt Free, Stand-Alone Telecommunications Company with Sale Of Utility Subsidiary to NorthWestern*, PR Newswire (Feb. 15, 2002); *Montana Power to Divest Energy Businesses, Company to Become Touch America*, PR Newswire (Mar. 28, 2000).

Table 8. Local Fiber Networks of IXC's That Supply Dark Fiber

Williams Communications. Williams Communications Group, Form 10-K (SEC filed Apr. 1, 2002). **Level 3 Communications.** Level 3 Press Release, *Level 3 Completes Construction of More Than 15,000 Miles of 16,000 Miles North American Intercity Network Through Third Quarter* (Oct. 3, 2000). **Global Crossing.** Global Crossing Press Release, *Global Crossing Reports 2000 Pro Forma Cash Revenue Up 36%, Recurring Adjusted EBITDA Up 54% from 1999* (Feb. 14, 2001). **Qwest Communications.** Qwest Communications Press Release, *Qwest Communications Launches Local Broadband Services in Washington D.C. and Baltimore* (Feb. 12, 2001).

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
AT&T Corp.)	RM No. 10593
)	
Petition for Rulemaking to Reform)	
Regulation of Incumbent Local Exchange)	
Carrier Rates for Interstate Special)	
Access Services)	

**Declaration of
Alfred E. Kahn and William E. Taylor
On Behalf of
BellSouth Corporation, Qwest Corporation, SBC Communications, Inc., and
Verizon**

SUMMARY

Competition in the special access market is vigorous and growing. Even in an environment in which RBOC local service volumes are declining and market valuations of telecommunications firms have collapsed, local exchange competition and competition for special access services continue to expand. Retraction of pricing flexibility for RBOC special access services as AT&T demands is not only unnecessary; it would weaken competition.

In contrast to AT&T's litany of familiar complaints about the prematurity of pricing flexibility and its dependence on RBOC facilities and services, we observe that the competitive supply of special access services has steadily increased with no observable slowdown from the implementation of limited special access pricing flexibility in 2001 and 2002. Competitive fiber route miles roughly doubled each year between 1990 and 1995, increasing from about 500 route miles to about 21,000, and current estimates put CLEC fiber networks at approximately 100,000 route miles in 1999 and 184,000 in 2002. Geographic coverage increased correspondingly; there are now

nearly 2,000 CAP networks in the largest 150 MSAs, and the top 25 MSAs average over 32 CLEC networks in *each*. Several independent estimates put the current CLEC share of special access revenues—not including the very large extent to which such CLECs as WorldCom and AT&T supply their own needs—at approximately 30 percent, and that share has continued to increase since the RBOCs were permitted flexibility in pricing of these special access services. On the retail side, the three largest IXC's still dominate the market for large business customers (the “enterprise business market”), which is the largest retail market that uses special access as an input. That fact demonstrates that IXC's can successfully compete in one of the most competitive retail markets, relying on some combination of self-supply, competitive supply and RBOC supply of the requisite special access facilities.

The principal putative facts that AT&T cites in support of its complaint center around the level and growth of RBOC special access rates of return and price-cost margins. Rates of return for individual services based on fully distributed costs are, however, notoriously meaningless as measures of anything, a fact upon which we and AT&T's economists have, until now, been in complete agreement. Similarly, price-cost margins measured using TELRIC are not evidence of market power: blank-slate TELRIC does not approximate RBOC forward-looking incremental costs and even properly-calculated price-cost margins need not be small in competitive markets where fixed and common costs are important, as they undoubtedly are in the telecommunications market. Indeed, evidence from AT&T's pricing of long distance service three years after it was granted full pricing flexibility shows margins as large or larger than those of which it complains here. Finally, the facts contradict AT&T's theories. The RBOCs' average revenue per line between 1996 and 2001 decreased by more than 1 percent per year in nominal terms and by more than 3 percent per year in constant dollars. Over the same period, trouble reports per access line fell, and the percentage of installation order commitments met remained consistently high. Nothing in the data remotely suggests the exercise of market power, whether by increasing prices or allowing service quality to deteriorate.

This is no evidence on which to reverse the Commission's long-standing policy of adapting regulatory constraints to the degree of competition in the market. Reducing the

RBOCs' ability to price services flexibly in markets where competitors have already constructed facilities and incurred sunk costs would only hamstring one of the larger participants in the market and deny customers—wholesale and retail—the benefits of vigorous competition.

Declaration of
Alfred E. Kahn and William E. Taylor
On Behalf of
BellSouth Corporation, Qwest Corporation, SBC Communications, Inc., and
Verizon

I. Qualifications

My name is Alfred E. Kahn. My business address is 308 N. Cayuga Street, Ithaca, NY 14850. I am the Robert Julius Thorne Professor of Political Economy, Emeritus, Cornell University and Special Consultant with National Economic Research Associates, Inc. (NERA). I received my A.B. degree summa cum laude from New York University and my Ph.D. from Yale University, in 1942. I came to Cornell University in 1947 and have served successively as Chairman of the Department of Economics and Dean of the College of Arts and Sciences. I have been Chairman of the New York State Public Service Commission and of the (U.S.) Civil Aeronautics Board; and in my capacity as Advisor to President Carter on Inflation, I participated actively in the successful efforts of his Administration to deregulate the trucking industry.

I am the co-author of *Fair Competition, The Law and Economics of Antitrust Policy*, author of the two-volume *The Economics of Regulation*, reprinted in 1988 by MIT Press, *Letting Go: Deregulating the Process of Deregulation*, published in 1998 by Michigan State University Institute of Public Utilities, *Whom the Gods Would Destroy or How Not to Deregulate*, published last year by the AEI-Brookings Joint Center for Regulatory Studies, and have published and testified extensively over the last twenty years in the area of direct economic regulation and deregulation, and on the requisites of efficient competition in regulated and previously regulated industries. I served as Associate Economist with the Antitrust Division of the U.S. Department of Justice in 1941-42; as a member of AT&T's Economic Advisory Board in 1968-74; was a member of the Attorney General's National Committee to Study the Antitrust Laws and the National Commission on Antitrust Laws and Procedures in the Eisenhower and Carter Administrations, respectively; I have served as consultant with both the Antitrust Division of the Department of Justice and the Federal Trade Commission; I was recently

a member of the National Research Council – Transportation Research Board committee charged with reporting to Congress on the state of competition in the airline industry.

My name is William E. Taylor. I am Senior Vice President of National Economic Research Associates, Inc., head of its Communications Practice, and head of its Cambridge office located at One Main Street, Cambridge, Massachusetts 02142.

I have been an economist for over twenty-five years. I earned a Bachelor of Arts degree from Harvard College in 1968, a Master of Arts degree in Statistics from the University of California at Berkeley in 1970, and a Ph.D. from Berkeley in 1974, specializing in Industrial Organization and Econometrics. For the past twenty-five years, I have taught and published research in the areas of microeconomics, theoretical and applied econometrics and telecommunications policy at academic and research institutions including the Economics Departments of Cornell University, the Catholic University of Louvain in Belgium, and the Massachusetts Institute of Technology. I have also conducted research at Bell Laboratories and Bell Communications Research, Inc. I have appeared before state and federal legislatures, testified in state and federal courts, and participated in telecommunications regulatory proceedings before state public utility commissions, as well as the Canadian Radio-television Telecommunications Commission, the Mexican Federal Telecommunications Commission and the New Zealand Commerce Commission. I have also filed studies before the Federal Communications Commission on numerous occasions. Of particular relevance to the present docket were a series of five filings with Professor Richard Schmalensee between 1994 and 1998 in CC Docket Nos. 94-1 and 96-262 on the use of observable triggers to determine when markets were sufficiently competitive to warrant pricing flexibility and the application of those triggers to special access markets.

II. The Special Access Market Remains Vigorously Competitive.

Special access services are private line services, i.e., services or facilities dedicated to a single customer. Special access channel terminations are sold to long distance carriers (“IXCs”) to originate or terminate interstate networks generally built for large business customers, and special access transport to connect the IXCs’ or CLECs’ points of presence (“POPs”) with the local exchange carrier’s central offices. Special

access services are also sold directly to large business customers, typically as part of private networks.

A. Competition in the special access market is well-developed.

Competition for special access services is as old as the RBOCs. Taking advantage of the regulatorily-imposed markups above marginal or book costs incorporated in RBOC interstate and intrastate carrier access charges, as a contribution to recovery of fixed and common costs, including the deliberate subsidization of basic residential charges, Teleport (TCG) began providing bypass services to IXC and business customers in lower Manhattan in 1984, shortly after the divestiture of the Bell System. Additional entry and expansion followed rapidly, as Institutional Communications Company (ICC) entered the Washington, DC market in 1986 and Chicago Fiber Optic followed shortly with an optical fiber network in Chicago. Between 1984 and 1992, competitive access providers (“CAPs”) proliferated, constructing fiber rings in the business districts of large and medium-sized cities, primarily providing dedicated connections between large business customers and their IXCs in order to avoid the regulated carrier access charges. In 1992, incumbent LECs were required to provide collocation in their central offices to CAPs, and CAP networks responded by building facilities between IXC POPs and collocation facilities in LEC central offices, opening the market for transport to competition.¹

Demand for CAP services grew rapidly. CAP fiber route miles roughly doubled each year between 1990 and 1995, increasing from about 500 route miles to about 21,000, and current estimates of CLEC fiber networks total approximately 100,000 route miles in 1999 and 184,000 in 2002. Geographic coverage increased correspondingly; there are now nearly 1,800 CAP networks in the largest 150 MSAs, and the top 25 MSAs average over 32 CLEC networks in *each*.² Independent sources put the current CLEC share of special access revenues at more than 30 percent, and that share has continued to

¹ See “Competition For Special Access Services” filed as Attachment B to Opposition of Verizon in this proceeding on December 2, 2002 (“2002 Special Access Fact Report”) at 7.

² 2002 Special Access Fact Report at 12-13.

increase since the RBOCs were permitted flexibility in pricing of these special access services.³

On the retail side, the three largest IXC's still dominate the market for large business customers (the "enterprise business market"), which is the largest retail market that uses special access as an input. That fact demonstrates that IXC's can successfully compete in one of the most competitive retail markets, relying on some combination of their own special access facilities and those of the other competitive suppliers and the RBOCs.

B. The FCC's triggers for pricing flexibility are reasonable and have been successful in application.

Against this background of established and proliferating facilities-based competition, the FCC embarked on a measured transition path towards pricing freedom for special access services as competition developed. Upon divestiture, LECs were permitted limited pricing flexibility in the form of optional volume discounts for private line and special access services, in recognition of the growing competition for those services.⁴ In transitioning to price cap regulation in 1990, the FCC authorized additional flexibility in the form of relaxed pricing rules in the special access basket, and those rules were gradually loosened over the next five years, permitting more extensive term and volume discounts and prices deaveraged by density zone.⁵ After the Telecommunications Act of 1996 opened the local and long distance markets to additional competition, the FCC reassessed the special access pricing rules, and in August 1999 adopted the Fifth Report and Order in CC Docket No. 96-262, which outlined circumstances under which suppliers of price-cap-regulated access services would be permitted additional pricing flexibility. The intention of the Order was to

allow[] competition rather than regulation, to determine prices for interstate access services, thus providing customers more choices among services, carriers, and rates. The Order gives the nation's largest telephone companies progressively greater flexibility in setting interstate

³ 2002 Special Access Fact Report at 27-28.

⁴ Report and Order, *Private Line Structure and Volume Discount Practices*, 97 FCC 2d 923 ¶39 (1984).

⁵ Second Report and Order, *Policy and Rules Concerning Rates for Dominant Carriers*, 5 FCC Rcd 6786 (1990) and First Report and Order, *Price Cap Performance Review for Local Exchange Carriers*, 10 FCC Rcd 8961 (1995).

rates as competition develops, gradually replacing regulation with competition as the primary means of setting prices.⁶

Among other reforms, the Order established a two-phased framework for granting specific forms of pricing flexibility, along with objective triggers that measured the degree to which competition had developed in specific geographic markets. In general, if competitors have collocated and use competitive transport in a target percentage of a price cap LEC's wire centers (or wire centers accounting for a target percentage of the LEC's revenue) in an MSA, the LEC's special access services are entitled to either Phase I or Phase II relief, depending on the trigger attained.

Phase I relief permitted the LEC to offer contract tariffs and volume and term discounts on one day's notice; Phase II relief removed the price caps entirely. More stringent triggers were set for obtaining Phase II relief than for Phase I and for relief applying to channel terminations than to transport. Beginning in the Fall of 2000, the LECs applied for such flexibility, and the first petitions were granted in December.⁷ Additional petitions followed in 2001 and 2002.

These rules represent a reasoned and measured transition from a regime in which regulation constrains prices towards one in which prices are constrained only by competitive forces. Properly, they tailor the degree of pricing flexibility to the geographic differences in the rate at which CAPs, IXC's and CLEC's invest and build their own competitive facilities—specifically, to the proportion of wire centers in an MSA in which competitors have made sunk investments in their own facilities.⁸ The presence of such investments indicates the need for pricing flexibility because it shows that—in the wire center in question—the market is open and entry barriers are sufficiently low that some firms are actually investing in sunk assets. Such committed entry is also a powerful deterrent to anticompetitive pricing by incumbent LECs because, once installed, the facilities would remain even if the original owner could be driven from the market.

⁶ FCC News, Report No. 99-33, "Commission Adopts Pricing Flexibility and Other Access Charge Reforms," August 5, 1999.

⁷ BellSouth Petition for Pricing Flexibility for Special Access and Dedicated Transport Services, CCB/CPD No. 00-20, Memorandum Opinion and Order, 15 FCC Rcd 24588, (Dec. 15, 2000).

⁸ In fact, the FCC's triggers underestimate the amount of sunk competitive investment in each wire center because they focus on collocation and ignore investment and competition that makes no use of RBOC facilities at all!

The Commission explicitly expounded the economic logic in its decision. Competitors who collocated in a wire center almost always constructed transmission facilities that terminated in the collocation cage.⁹ Once competitors had made such irreversible investments, there was no need for protection against possible ILEC anticompetitive pricing because it was unlikely to succeed.¹⁰ Entry in one wire center in an MSA was an effective trigger for competition throughout the MSA because carriers enter the market on an MSA basis and special access customers are large, sophisticated businesses with bargaining power sufficient to prevent the exercise of ILEC market power in parts of the MSA in which competitive facilities are absent.¹¹ Moreover, the effect of using collocation as the trigger mechanism was likely to be conservative because it ignored the presence of competitors that completely bypassed the ILECs' facilities.¹²

III. AT&T Offers No Valid Evidence of Excessive ILEC Market Power or Insufficiently Effective Competition.

AT&T provides no valid economic evidence that RBOCs retain significant market power in special access markets. Its use of accounting profit rates as we will proceed to explain, based on fully distributed costs to demonstrate that individual services are

⁹ "the presence of an operational collocation arrangement in a wire center almost always implied that a competitor has installed transmission facilities to compete with the incumbent," Fifth Report And Order And Further Notice Of Proposed Rulemaking, CC Docket Nos. 96-262, 94-1, 98-63 and 98-157, released: August 27, 1999 ("Fifth Report and Order") at ¶82.

¹⁰ "Phase I of our pricing flexibility framework provides incumbent LECs with regulatory relief when competitors have made irreversible investments in facilities within a given MSA. At that point, we no longer need to protect competition from exclusionary pricing behavior by incumbent LECs, because efforts to exclude competitors are unlikely to succeed" Fifth Report and Order at ¶77.

¹¹ "...regulatory relief is warranted ... even though such relief might lead to higher rates for access to some parts of an MSA that lack a competitive alternative, for several reasons. First, the customers for the services we address in this section are IXC's and large businesses, not residential or small business end users. These large and sophisticated customers generate significant revenues for the incumbent and are not without bargaining power with respect to the incumbent. Second, delaying Phase II regulatory relief until access customers have a competitive alternative for access to each and every end user might give competitors the ability to "game the system." In other words, competitors might be able to prevent an incumbent from obtaining pricing flexibility in an MSA simply by choosing not to enter certain parts of that MSA or to serve certain customers. We will not distort the operation of the market in this manner. Finally, because regulation is not an exact science, we cannot time the grant of regulatory relief to coincide precisely with the advent of competitive alternatives for access to each individual end user. We conclude that the costs of delaying regulatory relief outweigh the potential costs of granting it before IXCs have a competitive alternative for each and every end user." Fifth Report and Order at ¶¶142-144.

¹² "evidence of collocation may underestimate the extent of competitive facilities within a wire center, because it fails to account for the presence of competitors that do not use collocation and have wholly bypassed incumbent LEC facilities" Fifth Report and Order at ¶95.

overpriced is economic nonsense. Similarly, inferring the presence of market power from price-cost margins—particularly where the cost measure employed is TELRIC—has no valid economic basis. Finally, AT&T’s claim that increases in special access prices and revenues imply the absence of competitive alternatives for customers is incorrect as a matter of both fact and principle.

A. Earnings derived from measures of fully allocated costs cannot be used to justify a reduction in pricing flexibility.

AT&T says that high accounting rates of return for RBOC interstate special access services “represent conclusive proof of the Bells’ overwhelming market power.”¹³ This is a truly outrageous claim, relying as it does on measures of fully allocated book costs of services whose production in common with others entails a very high proportion of fixed and common costs and significant economies of scope—all the more so coming from a company and specific witnesses who have consistently and correctly decried the basis for such claims in economic terms for many decades. Yet, in this case, Drs. Ordoover and Willig surprisingly, without comment, equate ARMIS regulated rates of return for special access with economic profits (at ¶24), even adjusting them upward on the ground that “the RBOCs’ true costs of providing services over their local networks are their much lower forward-looking economic costs” (at ¶26) and by so doing enjoying the best of both possible worlds—regulatory allocations of costs themselves lower than regulatory costs, as typically measured.

High or increasing rates of return calculated using regulatory cost assignments for interstate special access services do not in themselves indicate excessive economic earnings reflecting the exercise of market power. Indeed, regulatory rates of return for geographic subsets of single services in multi-product, multi-geographic firms bear no relationship with economic profits and thus can serve no useful purpose in determining whether pricing flexibility has or has not been excessively permissive. ILECs are integrated multi-regional firms and rely on an integrated regional management structure employing the regional physical and human resources to provide a multiplicity of services. The cost allocations required render such a calculation meaningless.

¹³ AT&T Corp., Petition for Rulemaking To reform Regulation of Incumbent Local Exchange Carrier Rates For Interstate Special Access Services, RM 10593, October 15, 2002 (“Petition”), at 8.

Indeed, AT&T presented this very argument to regulators in Massachusetts when requesting to be relieved of rate of return regulation for intrastate services:

AT&T is an integrated, multijurisdictional company providing telecommunications services worldwide using an integrated national management structure and employing the same physical and human resources to provide international, interstate and intrastate services. Because AT&T's services used the same network, computers and other facilities whatever the jurisdiction, determining a cost basis for calculating an economically meaningful rate of return is impossible. Rationally determining the cost basis for purposes of pricing individual state subsets of those services is also an economically impossible task. Yet, Massachusetts ROR regulation requires that a fully-allocated cost basis be established and that the prices for AT&T's intrastate services be modified to reflect such cost allocations. Allocating AT&T's multistate costs to determine AT&T's Massachusetts costs, further allocating those costs between interstate and intrastate services, and yet further allocating the intrastate costs among numerous intrastate services is economically irrational as a basis for setting prices. There is no rational basis for believing that rates based on fully allocated costs are either fair or economically justified.¹⁴

The same considerations that led AT&T to contend that rates of return based on allocated accounting costs are “economically irrational” as a basis for pricing apply equally to RBOC interstate special access. The allocations of RBOC accounting costs between regulated and unregulated intrastate and interstate services are, of necessity, not based on cost-causation. Among interstate services, the allocation of costs to special access services requires additional, similarly arbitrary assumptions. The sources of these difficulties are obvious. Fixed and common costs permeate—indeed dominate—a telephone company's cost structure: to offer a single example, Executive and Planning plus General and Administrative Expenses represents more than 11 percent of Total Operating Expenses for the RBOCs.¹⁵ Even more important, each RBOC's network provides interstate and intrastate services, carrier services (special and switched access) and retail services (local and toll): a large fraction of these network costs cannot be assigned on a cost-causal basis to individual services.

¹⁴ Initial Brief of AT&T Communications of New England, Inc., dated April 23, 1992, in the Commonwealth of Massachusetts Department of Public Utilities proceeding DPU 91-79, at 42-43. Citations omitted.

¹⁵ In the 2001 RBOC ARMIS 43-02 report, the relevant expenses accounts are Executive and Planning (6710), General & Administrative (6720) and Total Operating Expenses (720).

The regulatory expedient of assigning fixed costs among categories (e.g., between regulated and unregulated or between interstate and intrastate jurisdictions), in proportion to variable costs or demand volumes, though “reasonable,” is not cost-causative, and the resulting costs are not economic costs. It might be equally reasonable to allocate railroad overhead costs to services by volume, weight or value, but shippers of feathers, coal and diamonds would undoubtedly disagree about the results. In Dr. Willig’s prophetic words some 15 years ago,

Fully allocated cost figures and the corresponding rate of return numbers simply have zero economic content. They cannot pretend to constitute approximations to *anything*. The “reasonableness” of the basis of allocation selected makes absolutely no difference except to the success of the advocates of the figures in deluding others (and perhaps themselves) about the defensibility of the numbers. There just can be no excuse for continued use of such an essentially random, or, rather, fully manipulable calculation process as a basis for vital economic decisions by regulators.¹⁶

B. Margins between price and incremental cost are not a measure of market power for telecommunications services.

AT&T asserts (Petition at 10) that the markup above incremental costs for special access services is unreasonable and much higher than markups in competitive markets:¹⁷

Special access services are provided over the same facilities and are functionally equivalent to high capacity loop and transport network elements. Yet, the Bell’s month-to-month special access rates are generally double...their comparable UNE rates.¹⁸

Both the comparison and the inference drawn from it are absurd.

First, where margins between price and incremental cost are used to measure anything, the incremental cost in question is emphatically never TELRIC. For example, the familiar Lerner index (the percentage markup of price above incremental cost) is sometimes calculated for a firm, but the incremental cost in question is the forward-looking economic cost of the firm itself, not the hypothetical cost of a perfectly efficient

¹⁶ W. J. Baumol, M. F. Koehn and R.D. Willig, “How Arbitrary is ‘Arbitrary’? – or, Toward the Deserved Demise of Full Cost Allocation,” *Public Utilities Fortnightly*, Vol. 120, No. 5, September 3, 1987 at 21.

¹⁷ Also see the Declaration of Janusz A. Ordovery and Robert D. Willig on Behalf of AT&T Corp. filed as Tab B to the Petition. (“O-W Declaration”) at 12.

firm serving the entire market as a wholesale provider using a fully-modern network optimally deployed around the incumbent firm's existing switch locations. Second and more fundamentally, price markups above incremental cost are necessary in an industry like telecommunications that is characterized by a large proportion of shared and common costs, fixed and variable. It is well-understood in the industry that it is not possible to price each telecommunications service at incremental costs and still have a viable firm that can expect to recover all of its forward-looking costs.

Experience from other segments of the industry clearly demonstrates that in the face of significant fixed and common costs, prices systematically exceed marginal costs. For example, the domestic residential long-distance telecommunications market has often been considered to be reasonably competitive, and AT&T was declared to be nondominant in that market by the FCC in 1995. Three years later, margins in that market were, however, as large or larger than those cited as "obscene" by AT&T (Petition at 3) for RBOC special access margins today—three years after they were accorded more limited flexibility.

For July 1998, using a public database of telephone bills of a random sample of U.S. residential households, we measured the average rate per minute actually paid by AT&T's customers for interstate domestic direct-dial phone calls, including a per-minute assignment of service charges, promotional credits, fixed monthly PICC flow-through charges, and a fixed monthly universal service fund assessment.¹⁹ From this sample, the average rate paid by AT&T residential customers was about 20 cents per conversation minute. Switched interstate access charges were about 2.8 cents per conversation minute in July 1998.²⁰ We have estimated that, at that time, federal universal service fund assessments and the Primary Interexchange Carrier Charge ("PICC") paid by AT&T to

¹⁸ Petition at 10 and O-W Declaration at 12. It is unclear whether to attribute this opinion to AT&T or to its independent economic experts, because—except for a typographic error in the AT&T Petition—they appear identically and without attribution in both the Petition and the O-W Declaration.

¹⁹ W. Taylor and P. Brandon, "Assessment of AT&T's Study of Access Charge Pass-Through," study of long distance pricing, filed ex parte on behalf of the United States Telephone Association, (CC Docket No. 96-262), October 22, 1998 ("Taylor-Brandon"). These calculations use residential billing data from *MarketShare Monitor*TM, *op. cit.* They allocate domestic direct-dialed calling-plan subscription charges, service charges, and promotional credits between interstate and intrastate direct-dialed calls. The PICC and universal service charges are interstate.

²⁰ Taylor-Brandon, and Federal Communications Commission, "Universal Service Monitoring Report", CC Docket No. 98-202 (September 2000), Table 7.15.

serve its residential customers, when added to access charges, came to about 6 cents per conversation minute.²¹ Estimates of long distance network marginal cost vary between 1 and 2 cents per conversation minute and total about 5 cents per minute if one includes marketing expenses.²² Combining these estimates, AT&T's marginal costs of serving residential customers totaled 7 to 11 cents per conversation minute, depending on whether one includes marketing expenses. Thus, AT&T's margin from residential customers was at least 9 cents per minute, even if one includes marketing expenses ($20 - 11 = 9$), and uses the upper range of estimated network costs. Thus three years after receiving considerably more pricing flexibility than the RBOCs received three years ago, AT&T, in the residential long-distance market that is frequently asserted to be competitive, appears to have imposed a minimum markup of almost 82 percent (9 relative to 11 cents) or a markup of more than 185 percent if marketing costs are not treated as incremental.

The point of this example is that in industries, such as telecommunications, characterized by high fixed costs and economies of scale and scope, it is neither uncommon nor in itself incompatible with effective (but sustainable) competition to find high percentage mark-ups of price above incremental cost for individual services. The case made by Drs. Baumol, Panzar and Willig for the importance of contestability as a measure of the effectiveness of competition rests precisely on the inapplicability of the pure or perfect competition model, in which alone there can be no such markups.²³

²¹ In July 1998, the residential PICC was \$0.95 for the first line and \$1.77 for each additional line. *See id.*, Table 7.14. The universal service fund ("USF") assessment was 3.93 percent. *See* Federal Communications Commission, Public Notice, *Proposed Third Quarter 1999 Universal Service Contribution Factors*, CC Docket No. 96-45, DA 99-1091, June 4, 1999. We have calculated AT&T's average cost of the PICC and USF per minute of serving its residential customers using a sample of residential bills from Market Facts, Inc. and PNR and Associates, Inc., *MarketShare Monitor*TM (September 9, 1998).

²² Estimates of toll and access incremental costs are presented in Robert W. Crandall, *After the Breakup: U.S. Telecommunications in a More Competitive Era* (Washington D.C.: The Brookings Institution, 1991), at 138-141; Lewis J. Perl and Jonathan Falk, "The Use of Econometric Analysis in Estimating Marginal Cost," Presented at Bellcore and Bell Canada Industry Forum, San Diego, California (April 6, 1989), Table 2; Robert W. Crandall and Leonard Waverman, *Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications* (Washington D.C.: The Brookings Institution, 1996); and Paul W. MacAvoy, *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services* (Cambridge, Massachusetts: The MIT Press and Washington D.C.: The AEI Press, 1996). The costs are obviously averages and vary a great deal across jurisdictions, times of day and technologies.

²³ W.J. Baumol, J.C. Panzar and R.D. Willig, *Contestable Markets and the Theory of Industry Structure*, San Diego: Harcourt Brace Jovanovich, 1982.

Thus, such markups in the special access market three years after limited pricing flexibility began are not in themselves evidence of excessive prices or of the presence of market power.

C. AT&T misinterprets demand, price and revenue changes in the special access market.

In both its Petition (at 11) and O-W Declaration (at ¶33), AT&T infers that RBOCs possess market power for special access services from its claim that the special access price increases (cited in Mr. Stith's Declaration) have led to higher revenues. While RBOC special access revenues have indeed increased, the reason is not inelasticity of demand but simply rapid growth in the demand for such circuits. The same ARMIS data sources that Mr. Friedlander uses readily show that special access volumes, measured by the sum of analog and digital access lines, have increased rapidly throughout the late 1990s, while RBOC special access revenue per circuit has declined, not increased.

These data clearly show a rapid and accelerating growth of RBOC special access lines, averaging 30 percent per year over the 1996-2001 period, which is consistent with the conventional industry wisdom that data services have been growing much faster than voice services in recent years.²⁴ Other sources show comparable growth rates for both ILECs and CLECs in the special access market: revenues grew at an annual rate of approximately 36 percent for both between year-end 1999 and year-end 2000,²⁵ CLEC fiber network route miles increased by about 84 percent between 1999 and 2002²⁶ and comparable expansion was experienced in the number of CLEC networks serving the largest 150 MSAs.²⁷

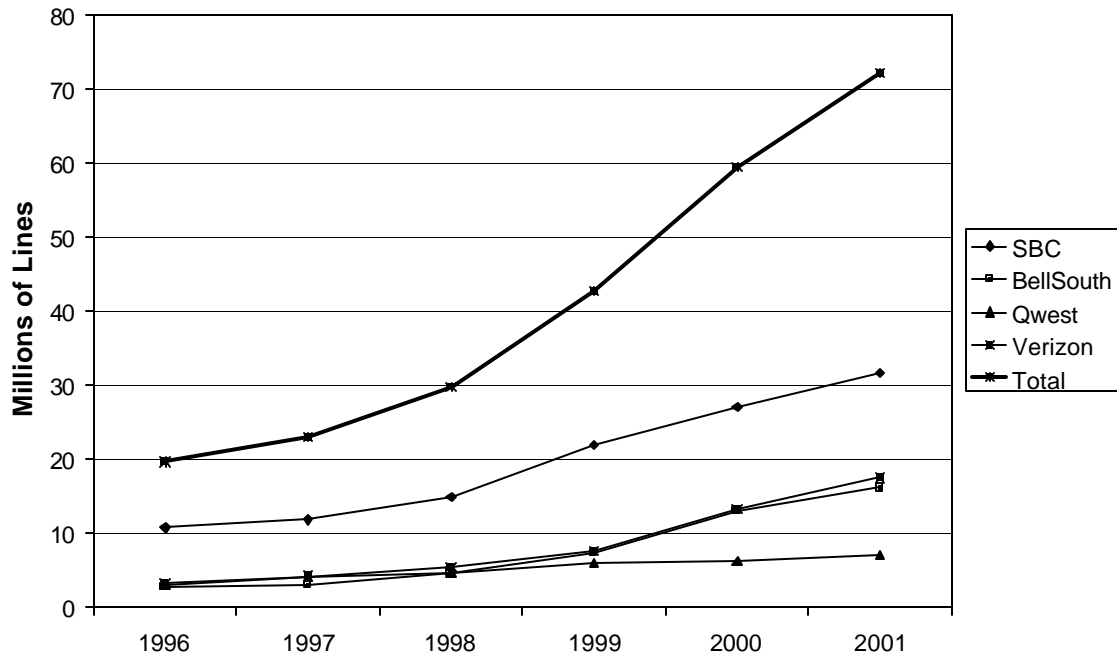
²⁴ Qwest reported ARMIS special access line count data for 1996 through 1999 included channel terminations to the POP. Data for that period reported in this, and subsequent charts dependent on line counts, has been adjusted by the company to remove channel terminations to the POP based on the percentage of channel terminations to the POP in 2000 and 2001.

²⁵ 2002 Special Access Fact Report at 27.

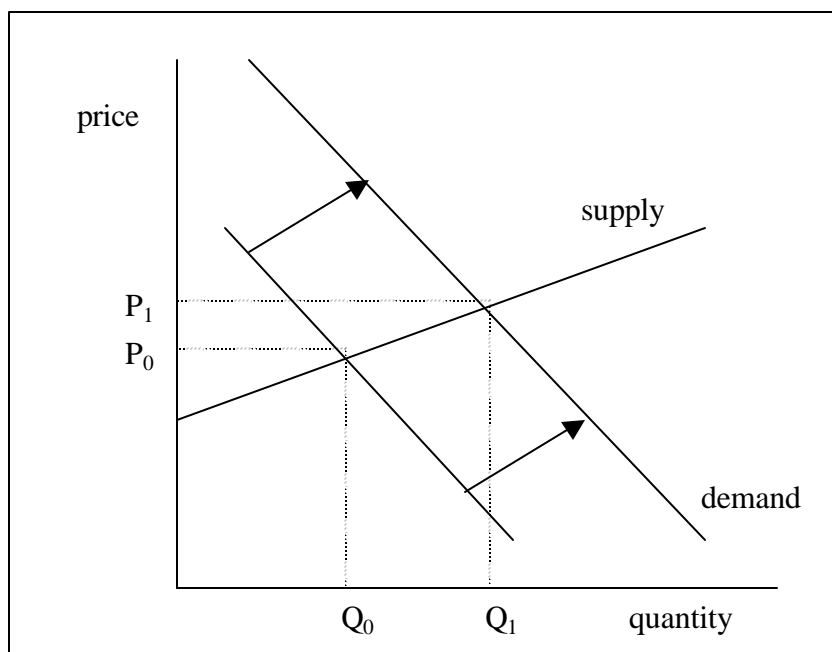
²⁶ 2002 Special Access Fact Report at 12.

²⁷ 2002 Special Access Fact Report at 12-13.

RBOC Special Access Line Growth



In economic theory, growth in demand unrelated to reductions in price is modeled as an outward shift in the market demand curve. In the example below, demand shifts outward and the market-clearing price as well as the volume of sales increases. The market price will increase provided the industry supply curve is not horizontal, and, at least in the short run, there is no reason to believe that the market is willing and able to supply unlimited special access circuits at current prices.



Thus, an increase in prices, revenue and demand volumes is not necessarily evidence that a large firm possesses market power, as AT&T clearly implies. Supply and demand are normally equilibrated in unregulated markets as demand expands by increases in prices and revenue until additional capacity can be brought on line, in reaction to the increased prices.

An additional source of revenue and earnings growth in interstate special access markets has been the recent growth in demand for Digital Subscriber Line (DSL)—an interstate service. DSL technology exploits unused frequencies on existing copper telephone lines to transmit high-speed data traffic — i.e., voice and high-speed data are simultaneously transmitted over the same telephone line — so that its incremental loop cost is small. As a result, increasing demand for DSL service generally increases interstate revenues with little corresponding increase in interstate regulatory costs.

The DSL revenues booked by the RBOCs to their regulated interstate accounts are large and grew rapidly during this period.²⁸ In 2001, BellSouth added more than 600,000

²⁸ SBC provides DSL service through a separate affiliate and does not book DSL revenue to its interstate special access accounts.

subscribers and booked \$264 million of DSL revenue.²⁹ Similarly, in spite of a decline in overall company earnings, third-quarter 2001 results show Qwest DSL revenue grew 80 percent, as the company logged 90 percent growth in the number of subscribers.³⁰ As the first quarter 2001 ended, Verizon had about 720,000 DSL lines — nearly five times more than it operated in the same period the preceding year.³¹ Setting aside the question of whether the *level* of ILEC charges for their DSL services was adequately constrained by competition—primarily of cable broadband, the market share of which was twice that of the telephone companies—these dramatic increases in revenues and earnings attributable to these services can obviously not logically be attributed to any exploitation of their market power over IXC and CLECs, as AT&T alleges. RBOC DSL revenue for Verizon, Qwest and BellSouth through September 2002 exceeded \$650 million, and, annualized, represents a 112 percent increase over total 2001 revenues of \$410 million.

Once we recognize that demand for special access services is growing rapidly, some other anomalies that AT&T points to in its Petition and the O-W Declaration can be explained. In particular, AT&T complains that special access prices—especially those subject to permissive flexibility—have increased or failed to decrease [Petition at 11-12, O-W Declaration at ¶¶28-30]. At the same time, it expresses dissatisfaction with optional pricing plans (“OPPs”) and term and volume discounts that it is either offered (as an IXC) or required to compete against (as a facilities-based self-supplier). As a matter of fact, using RBOC ARMIS 43-08 data, we find that the *growth* in special access lines fully explains the growth in revenue and that the RBOCs’ average revenue per line between 1996 and 2001 decreased by more than 1 percent per year in nominal terms and by more than 3 percent per year in constant dollars.³²

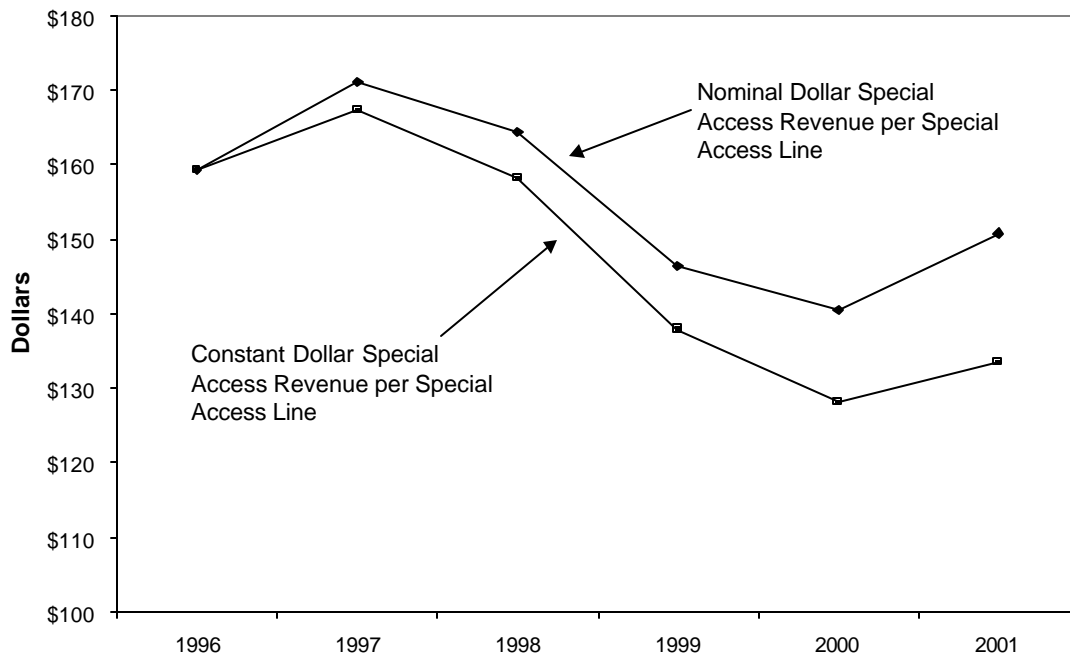
²⁹ See Revenues Rise at BellSouth, Broadband Week Direct, January 22, 2002

³⁰ CNN Money, Qwest Posts 3Q Loss, October 31, 2001.

³¹ Richard Williamson, eWeek, Broadband Still Blooming, May 7, 2001.

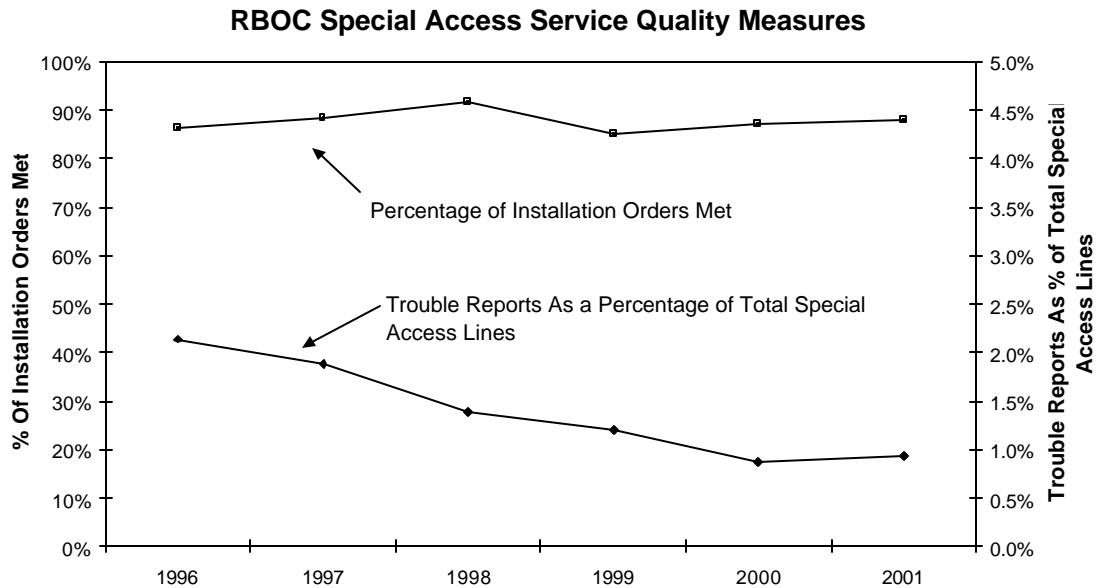
³² Even these decreases are somewhat understated insofar as special access revenue includes DSL revenue but special access lines do not include DSL lines.

RBOC Special Access Revenue per Special Access Line



Thus, the pricing flexibility exercised by some RBOCs during 2001 had no noticeable effect on their special access revenues per line, and AT&T's dire complaints of massive price increases likewise appear to be belied by the data.

Finally, AT&T infers the exercise of RBOC market power from its claim that the quality of the special access services it buys, particularly provisioning, is poor and deteriorating [Petition at 15, O-W Declaration at ¶31]. Again, the ARMIS data, measured per access line or per provisioning order, tell a very different story. On average, trouble reports per access line fell in half during the 1996-2001 period, and the percentage of installation order commitments met has remained consistently high throughout the period. Nothing in the picture remotely suggests the exercise of market power by allowing service quality to deteriorate.



In short, the basic ARMIS data show that on a per-occurrence basis, there has been an improvement, not a deterioration, in the quality of the RBOCs' special access service over this period, let alone any deterioration associated with or attributable to their having been accorded pricing flexibility in 2001 and 2002.

IV. AT&T's Proffered Evidence Has Nothing to do with Pricing Flexibility.

In its Petition and O-W Declaration, AT&T presents quantitative evidence which it claims shows that the pricing flexibility granted by the Commission has been injurious to both competitors and customers. In this section, we show that whatever the merits of these claims, they cannot be attributed to the introduction of pricing flexibility.

AT&T cites RBOC data on the level and growth of special access earnings and revenues for the period 1996-2001 as evidence that special access pricing flexibility has enabled the RBOCs to increase prices profitably.³³ The obvious problem with this

³³ The data is derived in the Declaration of Stephen Friedlander, Exhibits 1 and 2. The Petition graphs both earnings and revenue data for the years 1996 through 2001, and the O-W Declaration repeats the graph of earnings and cites the revenue results. Both the Petition and the O-W Declaration argue that the level and growth of earnings are evidence of market power [Petition at 8, O-W Declaration at 12], and the Petition infers the presence of RBOC market power from the fact that revenue increased despite price increases [Petition at 14].

inference is that special access pricing flexibility began only in 2001 and was implemented transitionally over the 2001-2002 period . According to AT&T,

[a]s of the 2002 tariff filings, approximately 59 percent of the Bells' special access revenues (excluding GTE) are no longer subject to price cap regulation [Petition at 11, no citation of source]

If AT&T is correct, a large fraction of RBOC special access service remains under price cap controls today. Moreover, where pricing flexibility has been granted at all, it has been authorized and implemented quite recently. According to the schedule shown below, the first grant of pricing flexibility was for BellSouth on December 15, 2000, followed by Verizon and SBC (on March 14, 2001). Qwest first received its authorization in April 2002. In interpreting the Table, observe that (i) the date on which pricing flexibility was actually implemented was frequently some two months after the RBOC's petition was approved by the Commission³⁴ and (ii) as the table makes clear, whatever the merits of AT&T's criticisms about the level and growth of RBOC earnings and revenues—merits that we criticized above—they have nothing to do with their authorization to price special access flexibly. RBOC accounting earnings and revenues for interstate special access services grew steadily from 1996 to 2000—*before* pricing flexibility was permitted. Again, according to AT&T, earnings for most RBOCs exceeded 11.25 percent, but that, once again, was before special access pricing flexibility was implemented. Qwest's experience, of course, has no bearing at all on the issue, since it had no such authorization during the period covered by AT&T's data.

³⁴ For example, SBC's first petition for flexibility was approved on March 14, 2001 and implemented in tariffs filed on May 16, 2001. Its second petition was approved on April 11, 2002 and implemented on June 18, 2002.

Number of MSAs Granted Pricing Flexibility							
Authorized			SBC	VERIZON	QWEST	BELLSOUTH	TOTAL
15-Dec-00	Chan Term	Phase 1				11	11
		Phase 2				26	26
	Transport	Phase 1				1	1
		Phase 2				38	38
14-Mar-01	Chan Term	Phase 1	18	13			31
		Phase 2	4	11			15
	Transport	Phase 1	13	6			19
		Phase 2	28	40			68
22-Mar-02	Chan Term	Phase 1		15			15
		Phase 2		8			8
	Transport	Phase 1		6			6
		Phase 2		4			4
11-Apr-02	Chan Term	Phase 1	7				7
		Phase 2	8				8
	Transport	Phase 1					0
		Phase 2	10				10
24-Apr-02	Chan Term	Phase 1			11		11
		Phase 2			20		20
	Transport	Phase 1			2		2
		Phase 2			31		31
22-Nov-02	Chan Term	Phase 1				2	2
		Phase 2				4	4
	Transport	Phase 1				3	3
		Phase 2				4	4

But what about the AT&T argument that high and increasing earnings and revenues imply that RBOCs have had and retain significant market power—that IXC's have no competitive alternatives—so that granting pricing flexibility could have anticonsumer and possibly anticompetitive effects? There are three responses, in addition to the fallacy of using regulatory earnings to measure economic profit, which we will discuss in the next section. First, the levels and trends of the data offered by AT&T were clear to all industry participants in the pricing flexibility docket. Moreover, AT&T and its economists do not claim that the data show a *change* in those patterns after pricing flexibility was permitted, and, indeed, the data show no such change. Hence, AT&T offers no useful *new* information—let alone “years of data”—that the Commission could use to determine if *pricing flexibility* has had undesirable effects.

Second, the trend and level of prices, revenue and earnings for special access in the data offered by AT&T are almost entirely the effect of price cap regulation, including the recent modification approved by the Commission in its CALLS agreement, to which AT&T was a willing signatory. Effects of the reduction in the productivity factor for the special access basket in 2000 are included in the data presented by AT&T, but presumably it and the other signatories to the CALLS agreement received other considerations for that adjustment and ought not to be asking for relief from those effects in this proceeding. Finally, timing aside, the information provided about earnings and revenues has no bearing on the presence or absence of RBOC market power in the special access markets.

V. There are Competitive Alternatives to RBOC Special Access Services.

AT&T says that it continues to rely on the RBOCs' high-capacity networks for interoffice facilities and for customer-premises channel terminations because CLEC services are unavailable or too expensive and self-supply is uneconomic because of its insufficient scale economies and difficulties in obtaining rights-of-way [Petition at 26-32].

Broadly speaking, these claims suffer from one timing problem and two errors of economic logic. As to the former, AT&T makes no attempt whatever to relate this asserted experience to the introduction of pricing flexibility for special access services. Instead, it merely repeats its general contentions about its difficulties in purchasing and supplying dedicated transport and channel termination services that have been thoroughly discussed in previous dockets. As for the erroneous economics, first, AT&T resolutely continues to ignore its ability to provide its own special access facilities; witness its meaningless claim that the "lion's share of AT&T's access dollars go to the Bells" [O-W Declaration at ¶35]. As we will proceed to demonstrate, the total "access dollars" to which it refers are only its payments to other suppliers, not its total outlays for such services—a difference that produces an enormous difference in results. What matters for CLECs and IXCs is that they have economically realistic alternatives to RBOC special access facilities available to them, not that they necessarily purchase them with "access dollars" from third parties. And, second, AT&T's generic claims about economies of

scale and sunk costs are belied by the technology and by the rapid growth of non-RBOC networks that have competed successfully against the RBOCs in those markets since shortly after divestiture.

A. AT&T ignores its ability to supply its own special access facilities.

AT&T complains of difficulties in *purchasing* special access facilities and services from non-RBOC suppliers. Since AT&T purchased TCG, one of the largest independent suppliers of competitive access services and by so doing took its network in-house, this complaint amounts to a blatant application of the orphan defense—in which a child murders his parents and then begs the Court for mercy on grounds that he is an orphan.

During the years in which the Commission examined alternatives to the RBOCs, the participating parties regularly documented the breadth, depth, reach and growth of networks supplied by Competitive Access Providers (“CAPs”) on a wholesale basis to IXC and CLECs and on a retail basis to large corporate customers. The business plan for a typical large CAP (in this case one that has since been acquired by WorldCom) was simple enough:

The Company sells its services primarily to IXCs, ISPs, wireless carriers and business, government and institutional customers who are high volume users of telecommunications services. ... **Through the deployment of state-of-the-art fiber optic networks and switches, the Company is able to provide the IXCs served by its networks with high quality, reliable services at prices less than those the regulated ILECs currently charge.** The Company can expand its capabilities to offer these services beyond the locations served by its networks by interconnecting its facilities with the facilities of the ILECs, IXCs and other providers of telecommunications services....

...**As an early entrant** in selected second and third tier cities, the Company believes it can attain a leadership position by **securing needed franchises and rights-of-way, installing robust state-of-the-art CLEC networks and facilities and establishing customer relationships with IXCs, ISPs, wireless carriers and business, government and institutional end users that will enable it to take advantage of the attractive potential growth rates for local exchange service revenues in those markets.** The Company is also pursuing opportunities in selected first tier markets (those with populations over two million) utilizing the Company's existing operational capabilities in conjunction

with operating agreements with the Company's major IXC customers **The Company's networks are generally designed to access at least 70% to 80% of the identified business, government and institutional end user revenue base and the IXC facilities...and substantially all of the central offices of the ILECs within their markets.**³⁵

Comparing the highlighted passages above with AT&T's litany of difficulties raises obvious questions. If Brooks Fiber could compete successfully against existing ILEC prices by installing "state-of-the-art fiber optic networks and switches" to serve IXCs, what are we to make of AT&T's sweeping assertion that economies of scale and the risk of sunk costs make special access circuits a "natural monopoly?" [O-W Declaration at ¶43]. If Brooks Fiber, as an "early entrant" into second and third tier city markets, can obtain "needed franchises and rights-of-way," how "enormous" is the RBOC first-mover advantage of which AT&T complains? [O-W Declaration at ¶¶44-45]. If Brooks Fiber can access 70 to 80 percent of its business, government and institutional revenue base and IXC POPs and all of the RBOC central offices, why is AT&T able to reach only 5 percent?

Of course, the claims of one such competitor—a competitor, moreover then acquired by the country's second-largest IXC—just as AT&T itself acquired Teleport—might logically be subject to some discount, particularly in light of the subsequent financial history of its acquirer. The fact is, however, that the CAP industry grew rapidly following this and similar business plans throughout the early 1990s. According to FCC statistics,³⁶ CAP route miles and fiber miles grew at annual rates of 59 and 67 percent respectively from 1990 through 1998. Tables 14 and 15 from the FCC's "Fiber Deployment Update for Year End 1998" show the state of the CAP industry roughly at the time the Commission was considering special access pricing flexibility and consolidation in that CAP industry took place.

While consolidation, reorganization and bankruptcies have affected much of the industry since 1990, and devastated it financially in the last year or two, they have not fundamentally affected the physical facilities. The corporate names attached to the circuits in the attached tables may have changed as the growth in fiber capacity caught up

³⁵ Brooks Fiber 10-K Report, fiscal year ending December 1996, emphasis supplied.

³⁶ FCC, "Fiber Deployment Update for Year End 1998."

with and exceeded the growth in demand, but the capacity itself remains in place, as the basis for a great potential elasticity of competitive supply, which continues to protect customers from unjustified RBOC price increases.

Table 14: Competitive Access Fiber Systems -- 1990 to 1998 *									
Company Name	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Route Miles								
Brooks Fiber	109	141	193	264	264	480	1,059	2,494	2,494
Electric Lightwave		6	104	126	225	466	516	952	1,426
e.spire (ACSI)							697	1,061	1,781
GST Telecom							305	415	849
Hyperion							2,887	4,761	5,666
ICG		105	132	151	424	637	2,073	2,872	4,208
Intermedia (ICI)	159	165	213	335	372	561	605	605	1,016
Kansas City Fib. Net	91	94	97	200	200	200			
MCImetro						2,338	2,948	2,948	NA
McLeod USA	65	75	95	121	116	NA	2,352	NA	6,436
Metromedia									380
MFS (WorldCom)	309	546	1,133	1,530	2,387	3,112	3,523	3,858	4,203
MHLightnet									148
NEXTLINK									2,477
RCN									1,700
Teleport (TCG)	468	647	1,158	2,276	4,135	5,823	7,182	9,474	11,417
Time Warner Telecom	59	86	88	96	348	3,312	4,232	5,911	6,968
Total Reported:	1,259	1,865	3,213	5,099	8,471	16,929	28,379	35,351	51,169
	Thousands of Fiber Miles								
Brooks Fiber	2.6	3.8	4.3	6.2	18.0	24.3	71.3	215.2	232.0
Electric Lightwave		0.5	6.8	11.7	20.5	NA	61.5	108.4	128.3
e.spire (ACSI)							48.8	92.5	157.2
GST Telecom							21.5	38.4	64.3
Hyperion							138.6	220.0	272.0
ICG		4.8	6.5	8.6	19.0	28.8	69.6	108.1	132.3
Intermedia (ICI)	2.9	3.0	5.2	10.2	11.3	20.5	24.1	35.0	40.4
Kansas City Fib. Net	2.5	2.6	2.9	NA	3.7	3.8			
MCImetro	NA	NA	NA	NA	NA	NA	NA	NA	NA
McLeod USA	1.6	1.8	3.7	5.0	3.0	NA	123.9	NA	382.9
Metromedia									160.0
MFS (WorldCom)	17.2	29.8	41.4	67.0	106.9	188.0	229.9	283.7	359.6
MHLightnet									4.7
NEXTLINK									195.5
RCN									86.6
Teleport (TCG)	22.2	28.4	43.7	100.5	171.7	267.1	364.8	491.1	549.7
Time Warner Telecom	0.5	1.2	1.2	1.4	10.4	107.9	151.7	233.5	272.4
Total Reported	50	76	116	211	365	640	1,306	1,826	3,038

Table 15: Competitive Access Fiber Systems -- Other Latest Available Data -- 1998 *					
Company Name	Sheath Miles	Average Fibers per Route	Investment Millions \$	Buildings Served	States Served
Brooks Fiber	2,494	93.0	NA	NA	20
Electric Lightwave	1,426	90.0	NA	2,686	7
e.spire (formerly ACSI)	1,781	88.3	NA	3,231	22
GST Telecom	917	75.7	170.6	689	8
Hyperion	NA	48.0	300.0	6,721	12
ICG	NA	31.4	#N/A	5,397	7
Intermedia (ICI)	1,016	39.7	#N/A	4,342	12
Kansas City Fiber Net	#N/A	NA	NA	276	2
MCImetro	NA	NA	NA	NA	33
McLeod USA (formerly MWR)	NA	59.5	193.9	1,028	2
Metromedia	NA	NA	NA	NA	NA
MFS (WorldCom)	4,376	85.6	NA	20,435	23
MHLightnet	148	32.0	NA	8	1
NEXTLINK	NA	NA	NA	NA	NA
RCN	NA	50.9	NA	NA	7
Teleport (TCG)	NA	48.1	NA	20,005	22
Time Warner Telecom	NA	39.1	NA	NA	10

Towards the end of the 1990s, consolidation in the telecommunications industry sharply reduced the number of these competitors, and between 1996 and 1998, the three largest consolidated CAPs were further acquired by AT&T and WorldCom, as we already observed: AT&T acquired Teleport in January, 1998, and WorldCom bought MFS in August 1996 and Brooks Fiber in October, 1997. As a result, the capacity (and growth prospects) for competitive wholesale local exchange facilities was taken off the open market and brought in-house by the two largest IXC's (and two of the largest CLECs). Consequently, there are indeed fewer *independent* CAPs available to AT&T and WorldCom today when they seek alternatives to RBOC special access circuits; but, of course, the capacity of AT&T and WorldCom to supply these facilities themselves increased by the same amount. One cannot simultaneously acquire the major wholesale providers of special access circuits and then, invoking the orphan defense, complain about a shortage of independent supplies or suppliers on the open market!

The bottom line, as AT&T pursues its strategy of moving access services in-house, is of course that the fraction of its "access dollars" that "goes to the Bells"

becomes increasingly irrelevant as a measure of the competitive alternatives to RBOC special access circuits available to it and the other IXC and CLECs.

B. Special access markets are competitive in theory as well as in fact.

AT&T [Petition at 29, O-W Declaration at ¶¶39-40] describes the technology of loop and dedicated transport services as characterized by either “enormous” or “substantial” economies of scale and sunk costs.³⁷ From this observation, it concludes that special access services are a natural monopoly and (presumably) that competition is or will be insufficient to justify conferring pricing flexibility on the ILECs. To put it another way, AT&T seems to believe that the extensive competition that exists in practice is not possible in theory. Again, AT&T has made this claim before, and nothing in its Petition or Declarations suggests that experience under pricing flexibility has vindicated its claims. The best economic evidence that special access services are competitive is the long and continuing history of entry and expansion of competitors and the steady decline in RBOC market share that has occurred.

Experience, even taking into account the financial meltdown of telecommunications firms, provides in itself sufficient refutation of AT&T’s claims. It is worth, however, pointing to weaknesses in its supporting argument. First, it complains [O-W Declaration at ¶35] that it and other CLECs “have been able to replicate only a small fraction of the Bells’ [entire] high-capacity network.” It has chosen the wrong denominator in calculating that “small fraction”: special access dedicated transport and channel terminations are point-to-point, not switched services, and a ubiquitous network is not necessary to participate successfully as a competitive supplier.³⁸

Second, the main driver of scale economies for local exchange service is customer *density*—serving dense areas permits use of larger cable, larger switches and shorter loop lengths. That source of scale economies is less important for dedicated transport or other point-to-point circuits, which do not use switches and for which individual customer

³⁷ AT&T used the former characterization [Petition at 29], its economists the latter [O-W Declaration at ¶¶39-40].

³⁸ Of course, with interconnection, switched competition need not be ubiquitous to succeed either as many niche competitors have shown.

locations provide a high volume of usage.³⁹ Moreover, insufficient demand on particular routes or inadequate assurance of demand sufficiently enduring to justify incurring the necessary heavy sunk costs [O-W Declaration at ¶¶49-52] may possibly explain why a small CLEC might find it uneconomic to undertake such investment, but they do not explain why a CAP, a group of CLECs or a wholesale fiber supplier could not. Indeed, the experience of the CAP industry has shown a willingness to invest in fiber in such markets. Wholesale local fiber suppliers such as Metromedia Fiber Networks, American Fiber Systems, Yipes and NEON have put fiber in the ground, and even though the current glut of fiber on the market has led to acquisitions, reorganizations and bankruptcies among these firms, the capacity they have installed remains. The fact that the incremental cost of operating that capacity is extremely low means that it can be brought into service quickly in response to a market price increase.

Third, AT&T claims that marketing expense is greater for entrants than for RBOCs because CLECs must “develop a brand” and incur large promotional expenditures to attract customers. As these costs are sunk, AT&T says, they constitute a barrier to entry, so that new entry cannot be relied upon to constrain the RBOCs’ special access rates [O-W Declaration at ¶45]. While these contentions are relevant to the feasibility of retail competition, they are of drastically reduced significance in the special access market, whose services—special access channel terminations and dedicated transport—are sold mainly to IXC and large businesses. Marketing and promotional expenditures and brand identity for services provided to a small number of long distance companies are much less important than for retail sales to the public at large. Similarly, retail customers of these services are large businesses which purchase them as part of networks supplied generally by the large IXCs. Marketing and branding costs are more of a problem for the RBOCs (which are essentially the new entrants into this market segment) than for AT&T, by far the largest incumbent provider. Irrespective of who the customer is, the claim that CLECs must incur higher costs than RBOCs to establish a brand may apply to some of them but surely not to AT&T and WorldCom, which already have business relationships with nearly every customer and who have long-established

³⁹ That is, customers whose demand volumes warrant DS-1 or higher service can be served efficiently by direct connections from an IXC point of presence without requiring intermediate aggregation.

brands and name recognition, particularly in the market segments for which special access is purchased.

VI. There are no Anticompetitive Effects in Adjacent Markets.

AT&T claims that excessive special access prices impede competition in both local exchange and long distance markets [Petition Section II, O-W Declaration Section V]. The Company has made this argument regularly in the past but has proffered no evidence from the recent experience with special access pricing flexibility to support or justify its relitigation here.

A. Pricing flexibility fosters efficient competition in retail local exchange markets.

AT&T's quarrel here is with the use and commingling restrictions on the availability of unbundled network elements, not with flexibility in the pricing of special access. Its claim is that because of those restrictions, CLECs cannot afford to avail themselves of the opportunity to lease the circuits they need to interconnect their own switches or transport facilities at the favorable TELRIC-based UNE rates, but must instead pay the much higher special access charges of the ILECs. Ignoring for the moment the rationale of those use and commingling restrictions, the argument is on its face peculiar from an economist's perspective. AT&T and its economists are attempting to assure the Commission that if these restrictions are lifted (or special access prices reduced), IXC's and CLECs will be more rather than less inclined to invest in their own facilities rather than use those of the RBOCs.⁴⁰ Considering that special access facilities and services are a factor of production for CLECs and IXCs, AT&T is in effect claiming that its demand curve (and those of other CLECs and IXCs) for RBOC special access facilities and services is, perversely, upward-sloping in relation to price. A more likely explanation of AT&T's preference is that its factor demand curve is indeed downward sloping, and it recognizes the economic axiom that, all else equal, a reduction in a factor price leads to its more intensive use. The result might well be more entry, but it would

⁴⁰ AT&T argues that high special access prices *indirectly* impede CLEC investment in switches (O-W Declaration at ¶49) and transmission facilities (O-W Declaration at ¶51) because RBOC facilities are necessary to link CLEC facilities into a network. But at the same time, high special access prices *directly encourage* CLEC investment in their own transmission facilities. AT&T is effectively saying that RBOC

surely be *less* facilities-based and more based on use of RBOC circuits and services. Thus, it is difficult to understand how the assertedly excessive special access prices charged AT&T by the RBOCs could constitute “a major barrier to entry by potential facilities-based competitors into retail markets for local telephony.” [O-W Declaration at ¶48]

In addition, the use and commingling restrictions serve an important economic function: namely to prevent arbitrage between two sets of regulated prices, set intentionally by application of different ratemaking principles. On the one hand, carrier access charges were established at divestiture and set intentionally above incremental cost in order to continue the flow of contribution from long distance services to local exchange services. On the other hand, TELRIC-based UNE charges were set (in principle) at incremental cost (plus a small margin) in order to encourage entry into local exchange telephony. Obviously, applications of these differing ratemaking principles can give rise to different prices for similar services, and the purpose of the use and commingling restrictions is simply to reduce the amount of arbitrage artificially generated by those differences that would undermine the Commission’s regulated carrier access charges.

Finally, it is worth observing that despite AT&T’s concern for the viability of local exchange competition, retail local competition is extremely healthy. In the teeth of a dramatic downturn in the economy and in the telecommunications sector, CLECs continue to invest and CLEC market shares continue to grow. Although UNE-P is probably the fastest-growing method of entry, in most states, substantial facilities-based entry has taken place.⁴¹ While parties can disagree whether the competitive glass is half-empty or half-full, it is certainly the case that CLECs have been able to overcome the potential entry barriers listed by AT&T and compete successfully against the ILECs in the local exchange market.

special access facilities generally behave as complements to CLEC facility investment rather than as substitutes.

⁴¹ See the UNE FACT REPORT 2002, Prepared for and Submitted by BellSouth, SBC, Qwest and Verizon in CC Docket Nos. 01-338, 96-98 and 98-147.

B. Targeted pricing and Volume/Term contracts are procompetitive.

After airing its claims that RBOC special access prices are too high, AT&T then contends that they are, at least in some circumstances, also too low. The O-W Declaration [¶¶53-63] asserts that Phase I and II pricing flexibility would permit the RBOCs to engage in targeted price reductions to discourage entry along particular routes and so prevent competitors from serving IXC, CLEC and end-user customers. The Petition [at 18-23] complains about downward pricing flexibility, customer foreclosure through multiperiod contracts and “severely anticompetitive” OPPs that would commit AT&T to minimum annual purchases over multiple years to obtain a discount.

It is important to point out at the outset that these allegations of strategic anticompetitive behavior are entirely theoretical. AT&T has presented no evidence to suggest it has in fact occurred, let alone as a result of the ILECs’ recent receipt of limited special access pricing flexibility. Nonetheless, in assessing these complaints, three relevant economic points must be borne in mind.

1. Downward pricing flexibility is in itself procompetitive.

In general, regulators should always look upon proposals to restrict price reductions with a jaundiced eye. Price reductions are painful to competitors, but they are the essence of the competitive process. Restricting the incumbent’s ability to lower prices denies consumers the benefit of those reductions immediately and reduces future consumer welfare by weakening competition and allowing inefficient competitors to remain in the market. As three well-known economic advisors to pre-divestiture AT&T observed,

These dangers remain even when regulatory commissions purport to prevent only discriminatory price competition. When an industry is subject to decreasing costs, the only way a supplier can cover his total costs while at the same time taking fullest possible advantage of scale economies is in fact to engage in price discrimination—specifically, to reduce prices selectively down toward incremental costs in markets where demand is relatively elastic. By prohibiting such suppliers from engaging

in selective price reductions in order to protect smaller rivals from the resultant competition, regulatory cartelization fosters inefficiency.⁴²

The offer of special deals to attract or retain customers, whether justified by differences in cost or actually discriminatory in the technical sense, is an essential way in which price competition takes place in the real world. That they may discommode or injure competitors is an inherent consequence; but one of the most fundamental distinctions in economics generally, and antitrust law specifically, is between the inflicting of harm on competitors, with a resulting net increase in consumer welfare, from weakening or impairment of the competitive process, resulting in an ultimate or net decrease in consumer welfare. The distinction is of course extremely difficult to make in practice, but it is absolutely fundamental. The fact that one of us has consistently over the decades emphasized the danger that such selected, discriminatory reductions can be predatory in intent or effect must not be permitted to obscure his consistent recognition of that crucial distinction, in principle. Any general restrictions on the ability of RBOCs to respond to Requests for Proposals or offer optional discount packages would restrict active competitive behavior and harm consumers by denying them both the direct economic benefit of any such offerings and of responses by competitors that they tend to compel, reducing the vigor of competition in the market. Term and volume discounts expand consumer choice and ultimately expand demand, increasing consumer welfare directly. Reasonable termination penalties are an inherent part of the bargain and make such plans possible by reducing opportunities for cheating; without such penalties, the plans could not be offered and the increase in consumer welfare, both direct and indirect, would be lost. Finally, distinguishing among differently-situated customers with optional discount packages can expand sales and increase consumer welfare, so that removing the option of downward pricing flexibility would be anticompetitive. And in all of the above cases, the fact that only the RBOCs would be precluded from using them would distort the process of competition and sacrifice its benefits to special access customers.

None of the foregoing arguments conflicts in any way, in principle, with the repeated emphasis by one of us on the dangers of predation—in particular, typically

⁴² W.J. Baumol, O. Eckstein and A.E. Kahn, “Competition and Monopoly in Telecommunications Services,” November 23, 1970, AT&T Reprint.

manifested in the offer of deep price reductions highly selectively, to combat a typically much smaller competitor, followed by the quick restoration of previously prevailing prices once the competitive threat has been eliminated. But never have his warnings been unaccompanied by an explicit recognition that it would be injurious to competition and the welfare of consumers generally to prohibit the mere offering of special deals and discounts, and by a reminder that such blanket prohibitions would in practice entail a prohibition of competition itself.

The Commission effectuated its concern that selective price reductions might be used to thwart competition in its Pricing Flexibility Order by requiring the presence of competitors using their facilities before pricing flexibility by incumbents would be permitted. AT&T [Petition at 18-21] claims “[e]xperience now shows” that the Commission was mistaken: the only “experience” it cites, however, is the RBOCs’ offerings of OPPs.⁴³ In fact, CAPs and CLECs have already invested heavily in facilities in major markets; those facilities are not going to go away and can be employed competitively at very low incremental costs. Any anticompetitive strategies aimed at frustrating new entry would be too late to be effective. Moreover, the customers for RBOC special access services are largely CLECs and IXC, and the largest of them, AT&T and WorldCom, are also the largest owners of CAPs. While AT&T expresses concern that selective price reductions by the RBOCs might make competition difficult for independent suppliers of special access facilities and services, even selective price reductions would have no anticompetitive effect on the decisions of AT&T and WorldCom to supply their own needs, at low incremental cost. Finally, as AT&T has argued on its own behalf for decades—from the time of Telpak to its more recent Tariff 12 offerings—customers are better off when incumbents, in addition to other suppliers, are able to respond to contract proposals from large business customers.

2. OPPs with term and volume commitments fill an important market need.

Any carrier precluded from offering optional pricing plans with term and volume discounts would be placed at a significant competitive disadvantage in the special access

⁴³ AT&T makes the oxymoronic assertion that the RBOCs use market power to *force* carriers to use their *optional* pricing plans (Petition at 21).

market. Long-term contracts are used to minimize risk exposure and stabilize production requirements and costs over time. In addition, when the buyer or seller incurs heavy sunk costs as part of the transaction, both parties are better off under effective long-term contracts. Common examples of such costs in special access markets include network design of customer-specific facilities and the purchase of transaction-specific equipment and facilities. Under such contracts, the buyer and seller are both assured that (i) their sunk costs will eventually be recovered from the transaction for which the costs were incurred and (ii) up-front sunk costs can be amortized and recovered over the life of the transaction, better aligning costs with revenues. Long-term contracts thus have salutary effects in the form of risk and cost reduction for both suppliers and customers.

AT&T complains [Petition at 22-23, O-W Declaration at ¶¶61-62] that the RBOCs have forced it into signing long-term contracts and OPPs that oblige it to “commit to certain levels of annual purchases to obtain the discounts.” It also complains that those contracts come with “sizable penalties for early termination” and that the RBOCs have “insisted on specific penalties for migrating traffic to competitors.” These complaints are without merit. First, the plans are optional, not just nominally but in reality: AT&T is not in fact obliged to choose them. As always, and as it does on a large scale, it can supply its own special access services, purchase them from other competitive suppliers or continue to buy them from the RBOCs at the ordinary tariffed rate.

Second, AT&T admits [Petition at 22, O-W Declaration at ¶62] that the savings it realizes by taking special access service under long-term contract from the RBOCs “dwarf whatever savings AT&T could achieve by using competitive alternatives”: obviously this can mean only that the OPP offers it additional benefits that outweigh the additional restrictions. Having the choice, irrespective of which choice it actually makes, clearly makes AT&T better off. Third, AT&T wants to have its cake and eat it: it values the savings from RBOC OPPs but complains about the penalties that apply for early termination. Such penalties are a standard practice in the offering of long-term contracts because without them, the discounts could not be offered. Obviously, if a customer could sign a long-term contract, obtain a discounted price on the seller’s expectation that it will be fulfilled and then breach it without penalty when a better offer came along, such

contracts, with the benefits they offer both parties, would be simply infeasible in the first place and end user customers would, ultimately, be the losers.

3. RBOC OPPs cannot “lock up” the largest special access customers.

Term commitments in multi-year contracts do not “lock up” customers in an anticompetitive manner, any more than General Motors locks up a customer when it sells or leases a Buick that the customer will drive for the next five years. Every special access carrier offers its customers multi-year contracts with early termination penalties, and while each customer that signs such a contract is in principle removed from the market for the services for which it has contracted, every carrier has a fair shot at securing the customer in the first place. The total demand for data services is growing at double-digit annual rates, and new customers and demands come into the market continuously. There is no reason why competition for multi-year contracts for large customers must be any less vigorous—any less beneficial for customers—than competition confined to month-to-month service arrangements.

Moreover, while AT&T claims that the RBOCs “have locked up the largest special access customers” [Petition at 23], those customers are, of course, the largest IXC and CLECs—AT&T and WorldCom. As both of them possess extensive local exchange networks from their absorptions of Teleport, MFS and Brooks Fiber, it is difficult to understand how their having the option of entering into term contracts with an RBOC could lock them up involuntarily or subject them to monopolistic exploitation.

C. Long Distance Markets

As in many other dockets since 1984, AT&T [Petition at 23-24, O-W Declaration at ¶¶64-69] asserts that setting access charges above incremental cost has anticompetitive effects in the long distance market, where RBOCs both supply carrier access services and compete for retail customers. The RBOCs, AT&T alleges, can use their “market power in the provision of special access” to sell that service to IXCs at prices above cost, while incurring only the underlying costs themselves in their own use of special access to offer competing long distance services. Such a strategy, AT&T claims, raises rivals’ (i.e., IXCs’) costs, and, in the limit, subjects them to anticompetitive price squeezes. It cites

two post-1999 examples as purported evidence that this theory has some relevance to the current proceeding, but in fact neither example demonstrates anything about the effect of special access *pricing flexibility* on long distance competition.

The flaws in AT&T's reasoning are well-recognized. First, pricing special access services above cost can not impair competition in the long distance market because the RBOC long distance affiliates buy special access under the same tariffs and OPPs as AT&T.⁴⁴ Therefore, pricing special access above cost can not generate a differential advantage for the RBOC's own long distance service or impose an anticompetitive price squeeze on an IXC.

But, AT&T complains, the cost that the RBOC actually incurs in providing access to itself (or its affiliate) is less than the cost its rivals incur when they buy access from it. How could such access prices not be anticompetitive, it asks?

The answer is simple. True, when AT&T wins the retail customer, it may purchase special access from an RBOC, in which event the cost it incurs is the price the RBOC charges, whereas when the RBOC wins the retail customer, it incurs only the incremental cost of providing the equivalent of special access. In the latter case, however, the RBOC also gives up the contribution (price less incremental cost) from special access that it would have received if AT&T had served that retail customer. Special access charge revenue (when AT&T supplies the retail service) is revenue that the RBOC foregoes when it supplies the retail customer itself. The higher that access revenue, the higher the retail price the RBOC long distance affiliate would have to charge to make long distance service profitable for the RBOC as a whole, as well as to make long distance service profitable on the books of its long distance affiliate. Thus AT&T is simply wrong [O-W Declaration at ¶68] when it claims that the RBOC can charge long distance prices "that do not reflect all of the artificially elevated access prices," and "divert substantial business from the IXCs to itself." The RBOC affiliate's retail price reflects to the penny what IXCs pay for access, as is required by both the law and by economic self-interest.

⁴⁴ In particular, Section 272(e)(3) of the Act requires BOCs to purchase carrier access out of the same tariffs as their competitors and to impute those carrier access charges into their long distance prices, so that all competitors effectively pay the same price for the same carrier access services.

Finally, AT&T is wrong again [O-W Declaration at ¶66] in supposing the RBOC can impose a price squeeze, earning a higher margin on its sale of access services to IXC competitors than its affiliate earns on its retail service. First, such pricing cannot occur unless the RBOC affiliate prices its long-distance service below its incremental cost, since the affiliate buys access out of the same tariff as the IXCs. Such predatory pricing is possible, of course, but is an unlikely strategy because it entails the affiliate sacrificing profits for some period of time with no reasonable hope of being able to drive its IXC competitors out of the market, and then raise toll prices without attracting entry and recoup lost profits, greatly facilitated by the ability of entrants to use facilities already in place, at very low incremental costs. Second, if one ignores the affiliate's balance of costs and revenues and looks only at the RBOC's, the same analysis holds. When the RBOC receives from the IXC a greater margin above cost for a minute of access than it receives from selling a minute of retail toll service, it loses money on every minute of those retail sales. For example, assume toll competitors must buy the RBOC's switched access service for 5 cents per minute and the RBOC's incremental cost of supplying access is 1 cent per minute—yielding it a margin or contribution of 4 cents. Suppose, in addition, that the RBOC affiliate's incremental cost for supplying toll is 2 cents per minute. If the RBOC's affiliate prices toll below 6 cents per minute, it would be more profitable to sell access to AT&T than to sell toll at retail.⁴⁵

Hence, AT&T's conclusion that "[t]his strategy may be profitable to the RBOCs" is certainly incorrect in the short run, and only possible in the long run under circumstances in which predatory pricing in the toll market is likely to be a profitable strategy and that, we have pointed out is highly unlikely in a situation of excess capacity.

AT&T offers two examples of recent (post-1999) anticompetitive effects of access charges in long distance markets. The first is an example that apparently pertains to SBC intrastate switched access charges and toll prices in Texas. The relevance of that example to interstate special access pricing flexibility is somewhat murky, and from the details given, one cannot conclude that SBC's affiliate is pricing its toll service below the sum of its toll incremental cost and the contribution (price less incremental cost) from

⁴⁵ A minute of access generates 4 cents of contribution in this hypothetical example. A minute of toll service sold for 5 cents per minute generates 3 cents of contribution.

switched access. The second example has nothing to do with a price squeeze: it merely observes that BellSouth has offered an optional package that combines Fast Packet Access Service and Frame Relay Service at an attractive price. While AT&T complains that it cannot get discounted Fast Packet Access Service without buying Frame Relay Service, it does not explain why that option is anticompetitive. As long as the package is priced so that BellSouth covers its incremental costs as well as the contribution from any access service an IXC must buy from it, the offering is procompetitive, as well as optional. AT&T's complaint amounts to a demand to buy the second item only in a "buy one, get one free" promotion.

VII. Conclusion.

Competitive activity in the special access market continues and continues to grow. RBOC average revenues per line continue to fall; service quality remains high and increases. AT&T's complaints of high RBOC rates of return are based on fully distributed costs and have no bearing whatever on its claims that the RBOCs retain market power. Similarly, AT&T's claims of high or increasing RBOC price-cost margins, especially calculated on the basis of TELRIC, are not evidence of the presence of market power when fixed costs are an important characteristic of the technology. AT&T's own price-cost margins three years after the Commission granted it pricing flexibility equal or exceed the margins of which AT&T complains here.

AT&T's submission offers neither factual nor theoretical ground on which to reverse the Commission's long standing policy of adapting regulation to the degree and character of competition in the market.